C.I.
MC44453

EAST SUFFOLK COUNTY COUNCIL.

BUREAU OF HYGIENE & TROPICAL DISEASES
LIBRARY
23 JAN 1928

ANNUAL REPORT

OF

County Medical Officer of Health.

1926.

Digitized by the Internet Archive
in 2017 with funding from
Wellcome Library

https://archive.org/details/b29186201

EAST SUFFOLK COUNTY COUNCIL.

BUREAU OF HYGIENE & TROPICAL DISEASES
LIBRARY
23 JAN 1928

ANNUAL REPORT

OF

County Medical Officer of Health.

1926.

ANNUAL REPORT OF THE COUNTY MEDICAL OFFICER, 1926.

CONTENTS.

PAGE

I. GENERAL STATISTICS AND EXTRACTS FROM VITAL STATISTICS. 6

II. GENERAL PROVISION OF HEALTH SERVICES IN THE AREA.

Public Health Staff; Hospitals provided or subsidised by the County Council; Institutional Provision for Maternity Cases; Ambulance facilities ; Clinic and treatment centres ; Midwives ; Laboratory work 10

III. SANITARY CIRCUMSTANCES OF THE AREA.

Water supplies; Pollution of the river Gipping; Sewage disposal; Sanitary inspections of Haughley... 20

IV. HOUSING 27

V. INSPECTION AND SUPERVISION OF FOOD.

Milk supply; Sale of Food & Drugs Acts; Milk and Cream Regulations, 1912 and 1917 31

VI. PREVALENCE OF, AND CONTROL OVER, INFECTIOUS DISEASES.

Infectious diseases generally; Outbreak of Typhoid at Westleton; Outbreak of Anterio-Poliomyelitis; Attack rate of infectious diseases; Isolation Hospital accommodation; Smallpox; Tuberculosis; Venereal diseases 43

VII. MATERNITY AND CHILD WELFARE.

Nursing Staff; Health Visitors; Infant Welfare Centres; Ophthalmia neonatorum ; Notification of births Acts, 1907 and 1915; Maternal Mortality; Midwives; Inspection of midwives. 86

VIII. BLIND PERSONS ACT, 1920. 99

IX. MENTAL DEFICIENCY ACTS, 1913-1925 101

X. CANCER 102

TABLES.

PAGE

I. BIRTHS 7

II. ILLEGITIMATE BIRTHS 7

III. DEATHS 8

IV DEATHS OF CHILDREN UNDER ONE YEAR .. 8

V. ANALYSIS OF SAMPLES TAKEN UNDER SALE OF FOOD AND DRUGS ACTS 41

VI. ANALYSIS OF MILK AND CREAM—Public Health (Milk and Cream) Regulations, 1912 and 1917 ... 40

VII. INFECTIOUS DISEASES. Attack Rate. 66

VIII-XXVII. TUBERCULOSIS STATISTICS. 71–80

XXVIII VENEREAL DISEASES 83

XXIX-XXXII. MATERNITY AND CHILD WELFARE 90–93

XXXIII. BLIND PERSONS. 99–100

XXXIV. CANCER DEATHS. 102

XXXV. CAUSES OF DEATH AT DIFFERENT PERIODS OF LIFE 106–107

XXXVI. NOTIFIABLE DISEASES IN URBAN AND RURAL DISTRICTS. 108

XXXVII. CAUSES OF DEATH IN EACH DISTRICT 109

APPENDIX A.

Seventh Annual Report of Normanston Hospital ... 111

PUBLIC HEALTH DEPARTMENT,
COUNTY HALL,
IPSWICH.

To the Chairman and Members of the County Council,

MY LORDS, LADIES AND GENTLEMEN,

I have the honour to present my Annual Report for the year 1926.

I record with the deepest regret the death of my Chairman, the late Alderman A. M. Bernard.

The administration of Public Health was undertaken by the County Council in 1910 and from that date Mr. Bernard was Chairman of the Committee dealing with these matters.

The Health work of the County Council had grown under his hands and his knowledge of it was complete. His power and ability were known to all, but only those who had worked for him and with him could fully realise his infinite kindliness and his consideration for others. The privilege of acting as County Medical Officer of Health under his direction for over three years was my good fortune. The value of his help throughout that period was incalculable, and to me the sudden loss is overwhelming.

I have the honour to be

Your obedient servant,

BERNARD WOOD-WHITE,

County Medical Officer.

31*st May*, 1927.

GENERAL STATISTICS.

Area: 557,353 acres.

Population 1926: 211,410 Births *Census* 1921: 211,702.
(Registrar General) 208,320 Deaths.

Number of inhabited houses Census 1921: 47,427.

Number of families or separate occupiers Census 1921: 48,989.

Assessable Value: *Average for Year* £864,447 10s. 0d.

Sum represented by a penny rate: *Average for Year* £3,601 17s. 3d.

EXTRACTS FROM VITAL STATISTICS OF THE YEAR.

		Total.	M.	F.	
Births:	Legitimate	3,221	1,724	1,497	Birth Rate 16.2 per 1,000.
	Illegitimate	209	101	108	

Deaths: 2,478 Death Rate 11.9 per 1,000.

Number of Women dying in, or in consequence of child birth:
from Sepsis, 2 from other causes, 10

Deaths of Infants under one year of age per 1,000 births:
Legitimate, 67. Illegitimate 91. Average: 68.

Deaths from Measles (all ages)	8
,, ,, Whooping Cough (all ages)	39
,, ,, Diarrhoea (under 2 years of age)	9
Cancer Death Rate	1.54
Tuberculosis Death Rate	.69

TABLE I.

BIRTHS.

Birth Rate.					
Year.	Total.	Urban.	Rural.	Administrative County.	England & Wales.
1917	3450	18.7	16.8	17.5	17.8
1918	3761	20.2	18.0	19.0	17.7
1919	3791	19.3	18.6	18.9	18.5
1920	5161	26.2	25.3	25.7	25.5
1921	4517	22.1	21.4	21.7	22.4
1922	4205	20.4	19.8	20.1	20.4
1923	4033	19.4	18.9	19.1	19.7
1924	3803	17.6	18.0	17.8	18.8
1925	3546	16.6	16.8	16.7	18.3
1926	3430	15.8	16.5	16.2	17.8

Birth Rate.

The Birth Rate for the County has decreased by 0.5 per thousand and as the rate for the country has been lowered by a similar amount, the County rate remains 1.6 per thousand lower than that for England and Wales.

The drop in the Birth Rate continues, but at the present time maintains a good margin over the Death Rate, so that in this respect the population of the County continues to increase.

TABLE II.

ILLEGITIMATE BIRTHS.

Year.	Total.	Birth Rate per 1,000 living.		
		Urban.	Rural.	Administrative County
1917	305	1.3	1.7	1.5
1918	342	1.7	1.7	1.7
1919	309	1.5	1.6	1.5
1920	326	1.3	1.8	1.6
1921	252	1.2	1.2	1.2
1922	247	.9	1.4	1.2
1923	224	.8	1.2	1.0
1924	218	.8	1.1	1.0
1925	156	.5	.9	.7
1926	209	.7	1.2	1.0

The illegitimate Birth Rate is considerably higher than last year, but in 1925 so large a drop was recorded that the figure must, I think, be regarded as a freak. I anticipate, however, that the illegitimate Birth Rate will continue to decrease at a greater rate than the legitimate.

TABLE III.

DEATHS.

Year.	Total.	Death Rate per 1,000 population.			
		Urban.	Rural.	Administra-tive County.	England & Wales.
1917	2595	13.8	15.3	14.7	14.4
1918	2748	15.6	15.4	15.5	17.6
1919	2598	12.4	14.4	13.4	13.7
1920	2247	9.7	11.7	10.8	12.4
1921	2272	10.4	11.5	11.0	12.1
1922	2616	12.2	12.9	12.6	12.8
1923	2153	9.8	10.8	10.3	11.6
1924	2430	11.0	11.9	11.6	12.2
1925	2422	10.9	12.0	11.6	12.2
1926	2478	11.1	12.5	11.9	11.6

Death Rate.

The Death Rate for the County is slightly higher than for last year and exceeds the rate for the country by 0.3 per thousand. This is the first time since 1917 that the County Rate has exceeded the country rate, when the County excess was the same as it is this year.

TABLE IV.

DEATHS OF CHILDREN UNDER ONE YEAR.

Year.	Total.	Rate per 1,000 Births.			
		Urban.	Rural.	Administra-tive County.	England & Wales.
1917	266	73	81	77	96
1918	294	86	72	78	97
1919	296	66	88	78	89
1920	314	65	57	61	80
1921	278	63	61	62	83
1922	243	64	53	58	77
1923	199	53	47	49	69
1924	221	62	55	58	75
1925	163	40	50	46	75
1926	234	74	64	68	70

Infant Mortality Rate.

The Infant Mortality Rate for this year is the most disappointing feature I consider that I have to record in my Report. Last year the rate was the very lowest recorded and was most satisfactory, but from 46 deaths per thousand it has increased to 67.6 deaths per thousand this year.

While the County has retrogressed in this respect, the country as a whole has gone forward and has a rate of 70 compared with 75 for 1925. Though the County rate is a little superior to that for the country in general, a Rural County such as Suffolk should show a very much greater divergence than it does this year, because figures for the large industrial towns in the North are always high and increase the country rate.

It will be observed that the figure this year is worse than any recorded since 1919. It was in that year very considerably higher but the effect of the War upon the population explains this high rate.

I regret that I am quite unable to account for the big variation that has occurred in this County in the Infant Mortality rate since 1923. Until that date there was a slow but steady decrease, however the last four years have shown a remarkable fluctuation, twice very good figures, and twice disappointing.

II.

GENERAL PROVISION OF HEALTH SERVICES IN THE AREA.

Staff.

Medical.

County Medical Officer, School Medical Officer and Chief Tuberculosis Officer:

Bernard Wood-White, M.B., Ch.B., D.P.H.

County Bacteriologist:

Harry Mills Cade, M.R.C.S., L.R.C.P., D.P.H.

Assistant Tuberculosis Officer:

Hedley Robert Vicars Crossfield, M.B., C.M.
(Is also Medical Superintendent of Normanston Hospital).

Inspector of Midwives and Superintendent Health Visitor:

Miss M. F. Chalmers, Queen's Nurse, Certified Midwife.

Asst. Inspector of Midwives and Asst. Supt. Health Visitor:

Miss E. M. Yeadon, Queen's Nurse, Certified Midwife.

Health Visitors: (full time):

(*a*) Miss E. M. Carter, Trained Nurse, Certified Midwife.
(*b*) Miss F. M. Cross, Trained Nurse, Certified Midwife.
(*c*) Miss A. Hatch, Trained Nurse, Certified Midwife R.S.I.
(*d*) Miss A. Shipperbottom, Certified Midwife, R.S.I.

A varying number of District Nurses.

Clerical Staff.

Gilbert Ranson, *Chief Clerk.*
A. Knight, *Finance Clerk.*

K. D. Johnson C. H. Smith J. Burrows A. R. Garrett (part-time)	*General Clerks.*
M. Christie E. M. Butters	*Shorthand Typists.*

Laboratory Attendants.

J. Yerrill.
S. R. Pelling.

List of Medical Officers of Health.

District.	Name.
URBAN.	
Aldeburgh	Dr. C. D. Somers.
Beccles	Dr. C. R. Smith.
Bungay	Dr. J. H. Busteed.
Eye	Dr. T. H. Pryce Morris.
Felixstowe	Dr. G. J. Conford.
Halesworth	Dr. P. J. de Nyssen.
Leiston	Dr. H. M. Sylvester.
Lowestoft	Dr. W. Stott.
Saxmundham	Dr. D. W. R. Richardson.
Southwold	Dr. D. W. Collings.
Stowmarket	Dr. S. C. Hounsfield.
Woodbridge	Dr. W. Redpath.
RURAL.	
Blything	Dr. J. Aylen.
Bosmere & Claydon ...	Dr. G. D. Shann.
East Stow	Dr. S. C. Hounsfield.
Hartismere	Dr. H. E. Barnes.
Hoxne	Dr. W. C. Hutley.
Mutford & Lothingland ...	Dr. L. Gibson.
Plomesgate	Dr. J. C. Keer.
Samford	Dr. H. P. Sleigh.
Wangford	Dr. J. H. Busteed.
Woodbridge	Dr. H. Hollis.

List of Sanitary Inspectors.

District.	Name.
URBAN.	
Aldeburgh	Mr. J. C. Gordon.
Beccles	Mr. C. L. Hamby.
Bungay	Mr. Harry Earl.
Eye	Mr. J. H. Willis
Felixstowe	Mr. H. Clegg.
Halesworth	Mr. C. W. Flaxman.
Leiston	Mr. J. T. Thorold.
Lowestoft	Mr. A. Isherwood.
Saxmundham	Mr. Albert Cutting.
Southwold	Mr. J. S. Hurst.
Stowmarket	Mr. G. W. Lingwood.
Woodbridge	Mr. W. G. Whisstock.
RURAL.	
Blything	Major J. T. Packard, O.B.E.
Bosmere & Claydon ...	Mr. H. Smith.
East Stow	Mr. Gordon Harrison.
Hartismere	Mr. B. Catchpole.
Hoxne	Mr. R. Read.
Mutford & Lothingland ...	Mr. T. Wood.
Plomesgate	Mr. J. Palmer.
Samford	Mr. H. Watling.
Wangford	Mr. Harry Earl.
Woodbridge	Mr. F. Motum.

Staff.

The year is remarkable because it is the last of the series of years that the School Medical Service has been separate from the Public Health Service.

It is generally recognised that these two organisations should not exist apart and many Authorities have a combined Service. This condition of things existed in the County prior to the year 1920, when the Education Department determined that re-organisation was necessary if the Medical work of that Department was to be carried out efficiently.

This most unfortunately resulted in the division of the Public Health and School Medical Services. An increased Staff was appointed and the arrears of work were gradually overtaken.

This separation was unfortunate because the work of the Assistant Medical Officers became rigidly confined to the duties of the particular Committee whose servants they were. Thus the School Medical Officers did nothing but medical inspection of Schools, Tuberculosis Officers specialised entirely in their branch of work, whilst the County Medical Officer supervised both Departments and carried out any other Public Health work that was required.

It has been my desire and object since I became County Medical Officer of Health to bring about a reunion of the two Services, which I believe is calculated to produce the most efficient and convenient form of Medical Service for the County.

This year the opportunity for amalgamation arose. Firstly, the Secretary of the Education Committee retired and a new Secretary was appointed. He held the same views as myself about the School Medical Service, and therefore with his support no opposition was put forward to the proposed change by the Education Committee.

Secondly, the Ministry of Health had been urging for some time that the County Council should appoint a further Medical Officer, particularly in regard to Tuberculosis work, and they suggested that in order to make the appointment of such an additional Officer possible, it would be wise to approach the Hoxne Rural District Council concerning the employment of this suggested new Officer as Medical Officer of Health for that Rural District, so that the new Officer would replace the existing Medical Officer of Health for Hoxne, whose appointment was of a temporary nature and confirmed by the Ministry of Health from year to year.

I personally held the strong opinion that the combination of duties, particularly in a County of a mainly rural nature, was highly desirable, and I prepared a scheme in which I recommended the reunion of the Public Health and School Services so that it could be possible to allow one of the Assistant Medical Officers to accept the appointment at Hoxne, and I further outlined a comprehensive scheme which might in future take in all boroughs of East Suffolk with the exception of Lowestoft and the Rural and Urban Districts of the County, so that the Assistant County Medical Officers of Health would perform not only the services that are administered by the County, but in addition the Public Health duties that are at present performed by part-time Medical Officers of Health.

This programme if it ever be accomplished, will of course take very many years, and it will be necessary for the Medical Officers of Health of all the Sanitary Areas whose Public Health work is carried out by part-time Medical Officers, whose appointments are not temporary, to relinquish their duties, and as some of these are young men, the time will be very far ahead before all these posts become available for whole-time Assistant County Medical Officers. A good workable population of a combined County area is about 30,000 persons, and it appears to me to be possible to divide the County up so that six Assistant County Medical Officers can administer all the County services and in addition be responsible to all the Urban and Rural Districts in the County for Public Health work administered by them. The combined areas that I have suggested are as follows:—

1. Northern Area	Mutford and Lothingland Wangford Beccles Bungay	Area ... 63,740 acres.	Population 26,658.
2. Eastern Area	Blything Halesworth Leiston Southwold	Area ... 94,154 acres.	Population 27,958.
3. Middle Area	Hoxne Plomesgate Aldeburgh Saxmundham	Area ... 128,211 acres.	Population 28,826.
4. Western Area	East Stow Hartismere Eye Stowmarket	Area ... 77,195 acres,	Population 23,194.
5. South-Eastern Area	Woodbridge Rural ,, Urban Felixstowe	Area ... 78,386 acres.	Population 32,327.
6. South-Western Area	Bosmere and Claydon Samford	Area ... 104,228 acres.	Population 28,416.

This division does not arrange for the work at Normanston Hospital and the Tuberculosis work at Lowestoft.

In order to explain the position fully I will take Area No. 6. In this area the whole-time Medical Officer would be responsible to the County Council for the Tuberculosis work, School Medical

Inspection and Maternity and Child Welfare work, and he would be paid by the County Council for these duties in proportion to the amount of time taken in conducting them. The Officer would be a servant of the Bosmere and Claydon Rural District Council for all Health Services administered by them and that Council would pay the proportion of his salary for these duties. The Officer would be responsible to the Rural District Council of Samford for all Health work administered by that Council, who would pay their proportion of his salary. In this way one whole-time Medical Officer would be carrying out all Public Health duties which are required throughout the Bosmere and Claydon and Samford Districts.

I am happy to say that the Committee accepted in principal the scheme which had been designed, and furthermore recommended the appointment of a further Medical Officer. Mr. Spink, the Secretary of Education, recommended to the Education Committee the desirability of re-union of the Public Health and School Service with the result that it has been decided to effect this from 1st April, 1927, and from that date the School Medical Officers will become Assistant County Medical Officers of Health, and they may be required to undertake any duties considered desirable.

I think I may say that the re-union of the two chief Medical Services and the acceptance of the principal by the County Council of the desirability of combined areas for the administration of Public Health work in the County is the greatest step forward that has been made since my appointment as County Medical Officer of Health, and I sincerely hope that the County Council and any District Council which enters into the scheme will never have cause to regret its adoption.

Hospitals Provided or Subsidized by the County Council.

(1) **Tuberculosis:—**

(*a*) *Pulmonary.*

- Normanston Hospital.
- Ipswich Sanatorium.
- Ipswich Isolation Hospital.
- East Anglian Sanatorium and other Institutions when required.

(*b*) *Surgical.*

- East Suffolk and Ipswich Hospital.
- Lowestoft and North Suffolk Hospital.
- Beccles Hospital.
- Felixstowe Cottage Hospital and other Institutions when required.

(2) **Maternity:—**

Ipswich Nurses' Home.

(3) **Fever:—** Ipswich Isolation Hospital for the treatment of Cerebro-Spinal Fever.

(4) **Smallpox:—**

Ipswich Small-Pox Hospital.
Joint Small-Pox Hospital at Carlton Colville.

Smallpox Hospital Accommodation

While no case of Smallpox has occurred in East Suffolk, this disease has been more prevalent in England during the year, particularly in the Northern Counties.

The type of Smallpox particularly in the large northern epidemic, is of a mild character and often is not recognised at the beginning of the outbreak because it is mistaken for Chicken-pox. This may result in the disease getting beyond control. It is usual for the first case that comes to the notice of the Medical Officer of Health to lie somewhere between the tenth and twentieth cases that have occurred. This being so, it is very easy to understand how quickly the disease spreads when its infectious nature and the fact that the great majority of the inhabitants of this country are unprotected is taken into account. If all the persons in England were vaccinated at regular intervals of seven years, it is difficult to understand how a single case of Smallpox could ever appear.

The question may be put that as the disease has assumed a mild character, would it not be better to allow it to progress without spending vast sums of money in attempting to check it. The answer is that it is not certain how long it will be of an avirulent type, and in addition, in a large outbreak of mild disease, the economic loss of time of wage-earning adults may be enormous, and therefore, it is important to prevent its spread by the isolation of patients, combined with the vaccination of all contacts and indeed all the unprotected community.

The County Council took over the responsibility for the treatment of Smallpox in 1917 for all the County except the Borough of Lowestoft and the Rural District of Mutford and Lothingland. No Hospital belongs to the Authority, but for the Southern Area of the County arrangements are made with the Ipswich Borough who have an Isolation Hospital of 36 beds. The County Council have four beds retained for their use and are allowed to use the other beds if these are not required for the Borough.

In the north of the County the provision is made by an arrangement with the Borough of Lowestoft, and the Rural District of Mutford and Lothingland who have a Joint Hospital near Lowestoft, which has a provision for six beds for patients. If these are not occupied by persons from Lowestoft and Mutford and Lothingland, then the County Council may use them.

The present accommodation is quite inadequate to deal with an outbreak of Smallpox of any magnitude. It is in fact difficult to know how many beds are required. I am of the opinion that there should be two lines of defence, the first being the Smallpox Hospital and the second a large building which can be taken over and utilised directly an epidemic becomes too large for the Hospital to accommodate.

In East Suffolk with the Ipswich Hospital there is an efficient first line of defence and if a secondary building with a large number of beds were available for conversion when required, it would be quite sufficient for the southern part of the County. If, for example, an outbreak of Smallpox commenced in Ipswich, the Hospital might fill and there would be little or no room for County cases. If a large building were available it could be converted from its usual capacity into a secondary Hospital immediately a Smallpox epidemic started and it would then be ready to take any overflow cases that could not be dealt with by the Ipswich Hospital.

The position in the north of the County is unsatisfactory. Two small wards of the Isolation Hospital have been allowed to go out of repair and at the present time it can be said that six beds only are ready for use. The whole Hospital is of a very temporary nature; water has to be pumped and is not laid on to the wards; the night soil is dealt with by earth closets.

I am of the opinion that a large ward should be added to the existing accommodation so that at least thirty patients could be admitted and that a proper water supply and sewage system should be installed, and a disinfector provided.

If a Hospital such as this were in existence in the north of the County we should have an efficient first line of defence in the northern area.

The Emergency Hospital of course would be required for overflow cases from this Hospital, and one large building in the centre of the County would suffice to supplement both the Ipswich and Lowestoft Smallpox Hospitals. If in the future the Workhouses come under the control of the County Council, the Emergency Hospital could be arranged.

I have been in communication with the Medical Officer of Health for Lowestoft concerning the necessity for further Smallpox Hospital accommodation in the north, and we hope to be able to present to our Committees a scheme. I feel that the change in the type of the disease has increased very largely the difficulty of preventing a wholesale epidemic once it commences.

Institutional Provision for Maternity Cases.

The County Borough of Ipswich established in 1918 a Maternity Home, forming part of the premises of the Ipswich Nurses' Home, 7 Lower Brook Street, where cases are admitted from the County.

A Sub-Committee of the County Council considers all applications from the County for admission to the Home and decides in which cases liability for the maintenance charge is to be undertaken and the contribution towards the cost to be asked from the patient.

Ambulance Facilities.

The County Council is in possession of a Ford Ambulance. This is used for conveying patients suffering from Tuberculosis from their homes to Sanatoria when this is necessary.

The ambulance is hired by the following District Councils for conveying cases of infectious disease between their homes and the Hospital.

Aldeburgh.
Bosmere and Claydon.
*Cosford.
Eye.
*Hadleigh.
Hartismere.
*Harwich Port Authority.
Plomesgate.
Samford.

*Districts outside the Administrative County.

An attendant is provided when he is required at a small charge.

Clinic and Treatment Centres.

(1) *Maternity and Child Welfare Centres for Consultation Purposes.*

Provided by the County Council :—

(*a*)	Aldeburgh.	Cottage Hospital.
(*b*)	Beccles.	Red Triangle Club, Newmarket Place.
(*c*)	Bungay.	18, Chaucer Street.
(*d*)	Felixstowe.	Salvation Army Hall, High Rd., Walton.
(*e*)	Halesworth.	Town Room.
(*f*)	Leiston.	British Legion, Victory Road.

Provided by the Local Authority :—

(*a*) Connaught House, Lowestoft.
(*b*) Kirkley, Lowestoft.
(*c*) Oulton Broad.

(2) *Tuberculosis Dispensaries for Consultation Purposes.*

(*a*) 3, St. Helen's Street, Ipswich.
(*b*) Crown Street, Lowestoft.

(3) *Treatment Centres for Venereal Diseases.*

(*a*) East Suffolk and Ipswich Hospital.
(*b*) Norfolk and Norwich Hospital.

Midwives.

The number of midwives practising in the area is 94.

Subsidies are only given in respect of midwives employed by District Nursing Associations.

County Laboratory.

Examinations for which Expenditure is Borne by Rates.

For the Public Health Department.

Widal Reactions; Examination of stools and urine for Typhoid Bacilli; Cultural investigation for the identification of carriers; *Cerebro Spinal Fluid in diagnosis of Cerebro-Spinal Meningitis; Stools in cases of suspected Dysentery, Typhoid &c.; Blood for Malarial parasites.

*The County Bacteriologist is always available for and often called upon by County Practitioners to perform lumbar punctures in these cases.

Examinations for which Expenditure is Borne by Rates and Taxes.

For Tuberculosis Department.

Sputa and Urine for tubercle bacilli, sent in by:—
County Practitioners, Tuberculosis Officers and Normanston Hospital.

For the Education Committee.

Swabs for Diphtheria; Hairs for Ringworm; Specimens of urine.

Under Venereal Diseases Regulations.

Examinations for the V.D. Clinic:—
Wassermann Reactions. Gonococcal Cultures.

Examinations for County Practitioners:—
Wassermann Reactions. Examination of Slides.

Charges are made to Practitioners for many examinations, principally the preparation of vaccines, but any other work that is desired is performed.

A charge is made to the Ipswich Borough Council and to St. Audry's Hospital, Melton, for work that is required by these Authorities.

At the present time all the pathological and bacteriological work is done for the East Suffolk and Ipswich Hospital at the County Laboratory at a charge of £250 a year. Last year I noted in my Report that in all probability the East Suffolk and Ipswich Hospital would consider the establishment of a Hospital Laboratory. This course of action, however, was not followed by the Hospital during the year 1926, and possibly will not be during the current year, but I have no doubt that some time in 1928, the Hospital Laboratory will be a concrete fact.

The work of the Laboratory divides itself into two groups, chemical and bacteriological, and 5,965 specimens have been examined during the year. Its activities have been extended by undertaking the work that is required by the Suffolk Milk Recording Society.

The table below sets out the examinations that have been carried out for the County Council, private practitioners, etc. I do not propose to differentiate these figures under pathological headings in this Report, but I have instituted a different method of tabulation and in my next Report I propose to give a detailed report of all the work done in the Laboratory.

County Laboratory.

Specimens examined:—	
For the County Council	3,397
,, East Suffolk and Ipswich Hospital	1,035
,, County Borough of Ipswich	4
Wasserman Reaction (for Ipswich and County) and other V.D. examinations ...	601
Milk for presence of Tubercle bacilli	142
Butter fat milks for Suffolk Milk Recording Society ...	786
Total ...	5,965

III.

Sanitary Circumstances of the Area.

Water Supplies.

I dealt fully with the Water Supplies of East Suffolk in my Survey Report last year. At the time of writing I have had no Reports from the Medical Officers showing that any alteration in the Supply has taken place.

Pollution of the River Gipping.

A large Artificial Silk Factory was instituted by Messrs. Bulmer, Rayon & Co. in 1925, and at the beginning of 1926 I received a notification from the Medical Officer of Health for Bosmere and Claydon, stating that he had had several complaints about the condition of the River Gipping which was said to be polluted by an effluent from the Silk Works.

In company with Dr. S. C. Hounsfield, Medical Officer of Health for Stowmarket and East Stow, and Dr. G. D. Shann, Medical Officer of Health for Bosmere and Claydon, I interviewed the Manager of the Works. We were informed by the Chemists that they intended to manufacture silk by two processes and that one only was in operation at that time. The chemical effluent consisted of sulphides and polysulphides, was of a greenish-yellow colour, thick and opaque, and smelt of sulphuretted hydrogen. When this entered the river and mixed with the water, sulphur in a collodial form was thrown down. The second process, which was not at that time in operation, would discharge an effluent containing sodium sulphate.

The Clerk of the County Council and myself interviewed Dr. Calvert, technical adviser to the Ministry of Health on river pollution, and we came to the conclusion that it would be advisable for us to approach the head of the firm.

In March we saw Sir Wm. Bulmer, who first pointed out that the river was polluted before it reached his works. He stated that sulphur was a valuable by-product and on that account alone every effort would be made to conserve it, to this end the necessary apparatus was being erected and it was hoped that this would be completed within two months. He also stated that as he used a large amount of water for cooling purposes, 35,000 gallons per day of pure water were taken from the chalk and he was of the opinion that when the Factory was fully developed the water of the Gipping would be in a no more polluted condition below than above the Works.

I considered on account of this it was advisable to wait a further two months before making tests of the water or considering any further action. However, in spite of this assurance after the two months had expired complaints became more general and pressing from the farmers whose land abutted the river from Stowmarket as far as Needham Market, and therefore on August 9th, I interviewed, in company with D. J. Bird, Esq., County Secretary of the National Farmers' Union, all owners and tenants who wished to complain about the condition of the river. Thirteen complainants were present and I noted all the complaints made. I do not propose to go into details, but it appeared that all the owners and tenants were of the opinion that the river was polluted and this pollution had been occurring for some considerable period, that during the Summer months owing to the smaller volume of water in the river it had increased, and that the pollution affected the cattle seriously and possibly hens, horses and ducks to a less extent, while those owners living close to the river objected to the smell. Most of them appeared to be definitely of the opinion that not only was the present pollution causing them pecuniary loss, and they feared that this might be greater in the future, but also that the pollution would depreciate the value of their property in the vicinity.

As a result of this Meeting I visited Stowmarket again on August 18th. I subsequently submitted a detailed Report to the Committee, and while I do not consider it to be necessary to go fully into the matter in this report, I give a short precis.

I inspected the river as it enters Stowmarket, throughout its course in the town some distance below Silk Works and at three points between this and Needham Market.

I took in all eight samples of water.

A. At the entrance of the river to the town.
B. Off Stow Leather Works.
C. 18 ft. from outflow of Prentice Bros. Chemical Works.
X. 4 ft. from outflow of Nobles' Chemical Finishing Works.
D. Off Bulmer, Rayon & Company's Silk Works.
E. At Woodlands Farm.
F. At Badley Mill.
Y. At Needham Market.

The river was clear on its entrance to the town, the Leather Works was causing some pollution, the water being dark here. Slight pollution was caused at the Prentice Bros. Chemical Works, but at the Silk Works the pollution was intense and obvious, the river having a yellow greenish haze throughout, while a smell of H_2S was distinct. Both at Woodlands Farm and Badley Mill, half way to Needham Market, the pollution was still marked, the river being discoloured and the smell offensive, while on the sluice gates of the Mill, sulphur was deposited.

The following is the Report of the Analyst which confirmed the conclusion drawn from the inspection:—

"A. This has the characters of an ordinary river water, flowing through a rural district, with a slight fluviatile sediment.

"B. This showed a certain amount of surface pollution (rise in free ammonia and nitrites) compared with A. It had a 'smoky' tint with a few black pieces as sediment.

"C. This is very much like B except that it possessed a flocculent brown sediment (matter impregnated with iron).

"X. This is very similar to B and C except that it contained a copious white sediment of carbonate of lime (chalk).

There was no serious pollution of the river so far.

"D. There were two bottles of this sample (as in the case of five other samples). One bottle had a milky appearance, with a small dark sediment, the other had a very 'smoky' tint, with a copious black sediment and odour of sulphuretted hydrogen. The milkiness was due to free (precipitated) sulphur, and the black colour of the sediment was due to sulphide of iron. The sample also contained poly-sulphides and sulphate of soda.

Compared with A, this sample showed an increase of 800 times in free and saline ammonia, of 30 times in organic ammonia, nearly 3 times as much dissolved solid matter, whilst the sulphur in solution, as sulphate, had risen from 4 to 42 grains per gallon.

"E & F Taken respectively at Woodlands Farm and Badley Mill, ¾m. and 1¼m. below D showed the same characteristics as D in diminishing degree. E had a very strong smell indeed of sulphuretted hydrogen, and it was still very marked in F.

"Y. Taken at Needham Market, still showed lingering signs of the effects of the pollution at D, but it was comparatively clear and contained numerous living crustaceans, whilst the sediment was generally of the ordinary fluviatile character.

D is the point of intense pollution. As this is opposite to the Artificial Silk Works, it is clear that the pollution is due to the effluent from these Works. And its character is what one would expect, viz., sulphur and sulphur compounds, by-products from the xanthation of the cellulose which is the basis of artificial silk.

"The effect of such an effluent upon the river must be, and obviously is, deposition and accumulation of collodial sulphur, blackening of the suspended matter, mud, and vegetation, deprivation of dissolved oxygen with consequent death of fish by asphyxiation as well as by direct poisoning.

"The deposit which you sent me from Badley Mill contained free sulphur.

"Unless the condition of this small river is to become intolerable, the effluent from these Silk Works should be deprived of its sulphuretted hydrogen, sulphides and sulphur by passage through iron oxide or some similar process.

(*Signed*) W. LINCOLNE SUTTON."

In addition to this I received a detailed account of the exact chemical findings. In order to eliminate the possibility of pollution by the effluent from the Sewage Works which enters the river, I took samples of the effluent and the report showed that they were fair samples and were not beyond the capacity of the River Gipping, if less than 100,000 gallons were discharged per diem, but they were not contributing anything to the characteristics of the pollution found in the river below the Silk Factory, *i.e.*, sulphuretted hydrogen-sulphides and free sulphur, but that they were responsible for a certain amount of saline ammonia.

On the same day I took further specimens of the water outside the Silk Works. The pollution did not appear to be so intense on this date which was September 13th as on the 18th August.

Therefore the evidence was conclusive. Some pollution was occurring before the inauguration of the Silk Works but this pollution in no way affected the stock or amenities of the riparian owners and tenants below Stowmarket.

The Silk Works commenced operation and immediately the river was observed to be polluted. The County Analyst stated that there was little pollution above the Silk Works and that at the Works this was marked. The effluent from the Bulmer, Rayon & Company's Silk Works was definitely polluting the river.

I submitted my Report to the Committee upon the matter and they instructed the Clerk to communicate further with the persons responsible, calling their attention to the Statutory provisions prohibiting pollution.

In October a reply was received from the Silk Works stating that the apparatus installed for the precipitation of the effluent was disappointing but that matters had been re-arranged so that the ammonium sulphide was no longer discharged into the river.

I wrote to one of the tenants and he admitted that the river was better, but that he put this down to the heavy rainfall. His stock were still affected by the water.

The result of a sample of the effluent taken by the Chemist of the Works on the 3rd November, 1926, was submitted to the Clerk of the County Council. From this effluent it was impossible to judge with any accuracy how far an improvement or otherwise had occurred because neither the volume nor the flow of the river was known, and the volume of the effluent was not given; it appeared to have improved considerably since August, but the sulphur in suspension was too high and some sulphide was still present.

I have inspected the river on one or two occasions since, and to the naked eye the improvement appears to be marked, the volume of water of course is greater in the Winter months, but I do not consider that this can account for the difference.

This then was how matters stood at the end of the year. The problem is one which presents great difficulties. On the one hand there is a new industry attempting to make a successful start in Stowmarket, a town which has suffered, until the new Works were established, from much unemployment. If the Works prosper employment will be found for many more hands and the industry should be an asset of great value, not only to the town but also to the County. It was natural that at first before the Works were completed and methods tested, pollution would occur. I believe that efforts have and are being made to prevent this pollution by the persons responsible, and considerable improvement has followed, though at present the difficulty has not been solved entirely.

On the other hand there are the tenants and owners of the land adjoining the Gipping from Stowmarket downwards who hold water rights which they and their predecessors have held since such things as rights have existed, these tenants have been seriously affected in many ways by the pollution of the river, and they themselves are obtaining no benefit from the activities of the Works, and they should be protected.

The position must be carefully watched and the responsible persons should be pressed to effect further improvements, and if these are not forthcoming the question of taking action should be considered.

The steps the County Council may take to prevent pollution are involved and it is possible may have little practical value if undertaken.

In the first place if the County Council wish to proceed further in the matter, an Inquiry must be held by the Ministry of Health, and no action can be taken unless the permission of the Minister is given. If such permission be granted, the County Council may then proceed to the Courts and the Judge, on pollution being proved, may grant an injunction to prevent it, but he may suspend this injunction indefinitely.

The machinery is heavy and cumbersome, the loopholes are many, and the difficulty of preventing pollution was emphasised by the reply of the Lord President of the Council to a Deputation when he stated that reliance must be placed upon the advance of Science rather than upon other means.

Sewage Disposal.

I have no knowledge that any alteration in the Sewage disposal has occurred in the County in 1926. I anticipate, however, that the Sewage Scheme which was commenced at Bungay in 1925, must now be within reasonable distance of completion.

Sanitary Inspections.

I, unfortunately owing to pressure of work have been unable to accomplish more than one inspection during the year. I hope in the future with the increased Medical Staff that I shall be enabled to give more attention to this branch of my work.

The village that I inspected was Haughley. The reason for my inspection was a request by Dr. S. C. Hounsfield, the Medical Officer of Health for East Stow, who informed me that owing to a complaint about the sanitation of the village his Council wished to have my report upon it.

I made a full report about the condition of things to the Committee with my recommendations. Geographically, the village stands upon a hill with, for Suffolk, a steep incline running down to a tributary of the river Gipping. It is an old-time village with ancient houses which possess for the most part small gardens or yards.

Haughley draws its water from one deep well in the chalk.

The night soil is dealt with by means of middens and pail closets, the contents of the latter being as a rule buried in the gardens. The slop waters are discharged by drains from the houses to the gutters which are depressions on each side of the road; the slops run down these natural channels with a brisk flow until at the bottom of the village they enter by surface drains into a tributary of the river Gipping.

I found definite overcrowding, while four houses had become decayed, and I ascertained that no house had been built under the Housing Acts.

My recommendations were as follows:—I considered the drinking water supply should be pure having regard to the depth and the strata from which it was drawn, and though a constant water supply would be desirable, I recommended no alteration at the present time for economic reasons.

I was of the opinion that the gardens were so small that they were unable to cope with the night soil and advised that the contents of the closets should be collected by a night soil cart weekly and deposited upon trenched land outside the village and covered with earth.

The slop waters were rather a difficult problem. There were three possibilities of dealing with the situation in Haughley. Firstly, a complete water carriage system. I considered this from the first to be out of the question, because it would entail the institution of a constant water supply to each house, so that the cost of such a system in addition to a water supply would be a financial impossibility. This being the case, the slop waters must be dealt with separately from the night soil, and two methods could be considered, the first of these was to allow the gutters to remain open, but to improve these by making regular and impervious channels down which the slop water could flow; the second was to make surface drains, one on each side of the road with occasional inspection chambers. In either case some treatment of the slop waters should be performed before they enter the river.

I advised the latter course of action but I am not at all sure that this would be in any way more beneficial to the health of the residents of Haughley than the open method. The supporters of the open method say, and rightly, that it is far easier to keep the open drain clean than if it were closed, and that once a surface drain is placed through the village the owner of any house can immediately connect with it a drain to take not only the slop waters but also the night soil, and in spite of the fact that it is mediaeval to have open drains running down the sides of a main street of a village, neverthe-having regard less, to the fall and the amount of slop water there is no danger whatever to health from this source.

The supporters of the sewer can state that the smell about which complaints have been made will be eliminated, that it is more in keeping with modern methods, and that the drain could be kept quite clean if flushed from the top. I think this is correct, as the fall from the top of the village to the bottom is good.

It is well known that this subject has had publicity throughout the country by means of the Press, and the village was described as being "worse than a slum," and "The Fever Pit of the Kingdom," in large headlines. An outbreak of Diphtheria occurring in Haughley has been put down in some quarters to the sanitary conditions. As a matter of fact the disease was imported from another County, and the two deaths which resulted occurred at Haughley Green, which is two miles from the village itself.

My view is that the health of Haughley would be distinctly benefitted by (1) further housing accommodation and (2) by the prevention by means of a night soil cart of the small gardens becoming sewage-soaked. The disposal of the slop waters though unsatisfactory has been perhaps over-emphasised because it appeals to the lay mind more dramatically, and is secondary to the first two considerations.

I understand that the matter has now been laid before the Ministry of Health, which I think is the most satisfactory solution to the problem. It will no doubt be considered by expert minds trained in Medicine, Engineering and Economics.

Haughley has been unfortunate I consider, in receiving such severe adverse criticism in the Press. It is naturally quite impossible for rural conditions to compare in any way with those to be found in urban areas, and if the townsmen would investigate in detail the sanitation of the average country village, he would be amazed at the conditions he would discover. I believe Haughley to be no isolated instance. The disposal of sewage in most country villages is primitive, and in the majority will remain so for many years, but it is in those larger ones where many houses are collected together, of which Haughley is typical, that improvements must first take place, and if the Press indictments of Haughley, which I believe to have been exaggerated, influence this village and others to improve their conditions, they will have achieved some useful purpose.

IV.

HOUSING.

The housing position in the County has not altered materially during the past year. I have not at present the Reports of the Medical Officers of Health of the District Councils before me, and have no knowledge of and am not able to comment upon the increase due to private enterprise and that caused by the erection of houses by Councils under the Housing Acts.

The Housing problem resolves itself naturally under two headings, firstly, the supply of houses and secondly, the condition of the houses.

In the Urban Districts there is I believe a very real want of further housing accommodation. Overcrowding is occurring and houses are being occupied that are not fit for habitation, and would be closed if it were not for the fact that it is impossible to find alternative accommodation for the present tenants.

I endeavoured to ascertain the housing conditions of the agricultural workers generally throughout the County in Rural areas, and I sent a questionnaire to all the medical men practising in these districts.

In answer to the question, "Is there a shortage of cottages for agricultural workers in your district?" I received 37 affirmative and 11 negative replies, so that on the whole it appeared that there was a real shortage of houses for agricultural workers.

In order to elicit the cause of a shortage I asked further questions, the first being :—

1. Is the shortage evidenced by—	*Affirmatives.*	*Negatives.*
(*a*) More than one family living in one house	24	24
(*b*) Married sons or daughters living at home in a house that is not large enough to accommodate them as well as their parents	31	17
(*c*) Labourers leaving the district because no cottages are available	15	23
(*d*) Young labourers, desirous of becoming married, but remaining single ...	27	21

I also asked if there was a shortage of cottages for agricultural labourers, was this due to—

	Affirmatives.	*Negatives.*
2. (*a*) Cottages becoming uninhabitable because of want of repair	27	21
(*b*) Old persons retaining cottages although no longer at work ...	34	14

(*c*)	Persons working in towns but living in rural areas	16	32
(*d*)	Retired townsmen buying and occupy-cottages	14	34
(*e*)	Houses available but with so high a rent that labourers cannot afford to inhabit them	15	33

The above figures, therefore, show that the Doctors in the County consider that there is a shortage of cottages and evidence is given which proves this to be the case, and the reasons that I suggested in the circular might account for the situation appear to be responsible to a certain extent for the condition of things.

Twenty-four affirmatives to 1. (*a*) and 31 to 1 (*b*) show that overcrowding exists and this is emphasised by the fact that seven medical men commented upon the small size of the cottages, while one stated that the greatest cause of immorality in the County was the two-bedroomed cottage.

2 (*a*) with 27 affirmative replies is a serious record, a state of things to which I drew attention in my Annual Report for last year. Six replies commented upon a number of houses which were in occupation but which were unfit for habitation.

Thirty-four affirmative replies in answer to question 2 (*b*) is as high a number as I expected it to be. The Old Age Pension and Out-relief has certainly added to Rural housing problems.

2 (*e*) has only fifteen affirmatives, a lower number than I anticipated. Council houses were nearly always mentioned in reply to this query and it was stated generally that they were occupied by persons other than agricultural labourers, and in spite of the fact that from an economic point of view agricultural labourers could never afford to live in these houses, nevertheless, this type of house was never available because in demand by other classes. Furthermore, one medical man stated that 8% to 10% of the houses in his district were in a state of disrepair, while two mentioned that the shortage was caused by speculative dealers buying cottages and refusing to let them while waiting for a re-sale, while another noted that when a rural cottage was burnt down, and this is not a rare occurrence, it was practically never rebuilt.

It is evident, if one has the opportunity, as I have constantly, of entering cottages in rural areas, that a great proportion of them are in a state of disrepair.

The condition of existing houses in any district can be improved very materially by energetic work of the Sanitary Inspectors, who must be supported by their Medical Officers and, what is most important, by the District Councils.

The maintenance of the condition of the cottages is perhaps the most important duty placed upon the Sanitary Authorities. A damp, dilapidated house is not only a grave menace to the health of those inhabitating it, but also will be responsible for housing shortage in the future when the state of the cottage has arrived at such a pass that it is more economical a proposition to demolish it than to carry out extensive repairs.

Another consideration is the structure of the dwelling. Very many cottages, being built upon clay without a damp course and with a brick floor, are in a state of chronic dampness, and it would require considerable reconstruction to alter this.

A most important feature of the country cottage is the absence in so many cases of sufficient bedroom accommodation. Two-bedroomed cottages are very numerous, and while these buildings are sufficient for the needs of an old couple or a labourer and his wife soon after marriage when the family is small, it is rare that the accommodation available can cope adequately with the increasing size of the family, so that overcrowding is inevitable during the period when the family attains and maintains its maximum size, until relief is obtained through the older children leaving home for domestic service, marriage, etc.

This overcrowding, probably, reacts more detrimentally upon the health of the children than the other sanitary defects which abound in rural areas.

It is possible that the morals of a large family living under such conditions might degenerate into what it is easier to imagine than to describe.

The conditions that I have noted are generally recognised to exist in some degree or another throughout Rural England, and in order to ameliorate the state of the cottages, the Government has introduced a Bill which has now become an Act of Parliament, namely, "The Housing (Rural Workers) Act, 1926." This has been specially devised with the intention of bringing existing rural cottages up to modern standards of comfort and sanitation, and in addition provides powers for the conversion of buildings, such as barns, not previously used as habitations, into dwellings.

The administration of this Act has been placed in the hands of the County Council, and each County Councillor has been provided with a circular explaining it and is no doubt conversant with this, and therefore I do not propose to enter into the matter in detail. Particulars are given of the many improvements that can be carried out. Two which I think would be particularly useful in this County are the provision of further bedroom accommodation and the rendering dry of cottages which have been built upon a clay soil with a brick floor and no damp course. Some suggested alterations appear to be outside the realms of possibility, except in a very few cases, such as the provision of a water closet instead of a privy, and the introduction of gas or electricity.

I welcome the Act for its intention and I sincerely hope that it will be largely used by owners of cottage property, and that many inadequate dwellings in the County will be made to comply with modern requirements.

It appears to me to be extremely difficult to make any forecast as to whether owners will take advantage of the Act or not. The question teems with economic difficulties.

In the first place there is the landowner whose cottages are in a state of good repair and well constructed. He will have no need to have recourse to the Act.

There is the landowner whose cottages may have constructional defects, which require improvements or additions. It is possible that such a landlord, though wishful to improve his property, has not been able in these times of difficulty to carry out his wishes entirely from his own purse. It is from this class of owner, I believe, that most applications will be received.

There is the farmer who owns his farm. Farming in arable areas is well known to be a precarious means of obtaining a livelihood at the present time. Such a man though he knows that his cottages occupied by his labourers require extensive improvements and may wish to carry these out, nevertheless, may not have the necessary capital, and even if he had, possibly does not wish to sink more money in an unprofitable investment, particularly when his cottages though deviating from modern standards to a marked degree suffice to house his workers and their families. Therefore if applications are received from this type of owner I should be inclined to think that perhaps farming is emerging from "The Winter of its Discontent."

Again there is the owner who has bought cottage property as a speculation. I cannot believe that cottages in these hands will benefit by the Act because only 3 per cent. more rent can be demanded on the money which has been expended by the owner.

Lastly, there is the Old Age Pensioner who has managed to save enough money to buy his own cottage. He as a general rule is content with his dwelling and as he possesses no capital, he will be neither willing nor able to improve his cottage.

The foregoing, however, is merely conjecture which may prove to be quite incorrect. Personally, I wish the Act every success and I hope it will be used largely throughout this County, for the application of its measures would be of the greatest value in promoting the health of rural communities.

V.

INSPECTION AND SUPERVISION OF FOOD.

Milk.

The Administrative County is, of course, an agricultural one, and although it is considered generally to be a crop-growing area, nevertheless, a large amount of milk is produced.

The Dairies, Cowsheds and Milk Shops Act 1885, and Regulations under the Act have been administered by the Local Sanitary Authorities, and the County Council has had no interest in the administration of the Act or its Regulations.

There is no doubt that many Sanitary Authorities have been inclined to regard this part of their duty somewhat lightly, and so long as the lime-washing of the sheds has been performed twice yearly, the Dairyman has been allowed to carry on in the way that he thought fit, without interference.

In the days when it was customary for women to do the milking I think there is no doubt that a much cleaner milk was produced than later, when this branch of the work fell into the hands of the farm labourers. It is obvious that a woman employed in the Dairy would be cleaner, both personally and in her methods than the farm labourer, employed only part of his time in the actual Dairy work, and so with the disappearance of the Dairymaid, the milk supply of the country fell into a state of uncleanliness such as had probably never before been experienced. The farmer looked at the question naturally from the financial aspect, and not appreciating the need for clean milk had neither the desire nor the requisite knowledge to produce it. The farm labourer, whose clothes and hands naturally suffered on account of his occupation, having received no instruction in the production of clean milk, could hardly be surpassed as an agent for contaminating the milk supply. The cows in many cases were rarely groomed, so that their flanks were coated with layer upon layer of mud and manure; sterilisation of churns and cans was constantly omitted or ineffectively performed and the milk before reaching the consumer ran the gauntlet of the addition of dung and hairs from the cow's tail and flanks, dirt from the hands of the milker, and a plentiful supply of germs from the decomposing deposit left by milk of previous milkings in the can or churn.

In order to give this product an appearance of cleanliness, the milk was put through a strainer and delivered to the customer in a heavily polluted condition. Little wonder that such milk turned sour within a few hours in the summer when the temperature was favourable to the growth of bacteria which the milk contained in enormous numbers.

One could not blame Sanitary Authorities for not exerting more supervision, their Inspectors had much to do without constantly inspecting farms, and many of them had not the necessary experience and it would have been impossible to have made any real progress towards a clean supply until the whole subject had been tackled at the root.

Until enlightenment and education has prevailed Regulations cannot be enforced. If the general public which includes District Councillors, the farmers and cowmen, know and care little about the value of clean milk, model Regulations will be looked upon as impractical idealisms and will be adopted only by very progressive Councils, and if they be adopted, often cannot be enforced, and therefore, it is essential that Regulations and their observance should go hand in hand with education. Until recently the education was not forthcoming, and hence, little or no advance was made, but of recent years much stress has been laid upon the necessity for cleanliness in the production of milk and practical means of increasing knowledge on the subject have been instituted.

In this County, although the Public Health Department has had no hand in the matter, the Agricultural Sub-Committee of the Education Committee since 1st April, 1925, has employed an Organising Secretary who has and is doing work of enormous value throughout the County. She visits farms, giving instruction in the methods of clean milk production, and it is this education of the farmer and farm hand that is perhaps the most important part of her duties.

It is easy to train the young milker to carry out the best ways and means but it may be extremely hard to convert an old, although otherwise capable head cowman to modern methods, and the difficulty very largely at the present time is, therefore, not so much to induce the farmer to produce clean milk, for the number who desire to do this is increasing rapidly, as to convert his old hands to up-to-date methods.

Therefore we may say that except in particular instances, the Regulations under the Dairies, Cowsheds and Milk Shops Act of 1885 were not carried out effectively by Dairymen, because compliance with these Regulations in detail was not insisted upon by the Sanitary Authorities.

Public opinion, however, particularly since the War, has become increasingly centred upon Health generally, and it is natural that the milk supply of the country should be considered amongst other sanitary matters by the man in the street.

In America the question of the cleanliness of the milk supply has been deeply investigated and in that country certain standards of milk have been established. This was probably one of the forces that influenced the improvement of the milk supply of this country when the Ministry of Food classified certain milks in Great Britain. Until 1917 there was no standard by which the cleanliness of milk could be gauged. That being so, there was little encouragement to owners to produce, at a greater expenditure to themselves and little or no financial benefit a milk of more value to their customers on account of its cleanliness. In spite of this fact, many enterprising Dairy-owners were and had been producing milk for years under clean methods, very largely in what were termed 'model Dairies.'

In Suffolk in 1912 a great advance was made when the Milk Recording Society was instituted; its membership has steadily grown so that now out of about 25,000 Dairy cows in the County of East Suffolk 5,000 are registered by this Society. The Milk Recording Society is most valuable in spreading scientific knowledge amongst Dairy farmers, and in addition to showing them how to produce more milk, their efforts are also directed towards the production of clean milk. In 1922 the Milk and Dairies Amendment Act was passed and was followed by the Milk Special Designations Order of 1923. This Order definitely laid down standards of milk and gave farmers the opportunity of becoming licensed to sell Milk under the various Grades; these Grades were Certified, Grade "A" Tuberculin Tested, Grade "A" and Pastureised. The licences under the first two grades are held from the Ministry of Health; a licencee of both these Grades must have no animal in his herd which has not passed the Tuberculin test, must have his herd examined quarterly by a Vet., and the milk taken at any time before it reaches the consumer must attain a certain standard of cleanliness. This cleanliness is measured by the examination of a specimen of the milk at a Laboratory and the ascertainment of the number of germs present in a cubic centimetre. If these are found to be over a certain amount, the milk does not pass the test. This measurement of germs is an accurate comparison of the amount of dirt that has found its way into the milk, for milk as it leaves the udder of a healthy cow is sterile and bacteria reach it through the vehicle of dirt derived from milker, cows, cowsheds and churns.

The fact that no cow reacting to Tuberculin is allowed in the herds producing these two grades of milk naturally limits the number of licence holders very considerably. The elimination from the herd of animals reacting to Tuberculin may be an expensive business, for this reason, that 40 per cent. of the cattle in this country react in this manner, and therefore, one cannot expect to find many herds of theses designations in East Suffolk, and in fact it is only where farms are in proximity to towns and where the farmers can sell direct to the customers that it appears to be possible.

The advantage of drinking Certified and Grade "A" Tuberculin Tested Milk is firstly that the milk is produced as free from tubercle bacilli as this is humanly possible, and secondly, that it is produced under clean conditions.

Grade "A" Milk, for which a licence is issued by the County Council, differs from the two Grades previously mentioned in so much as no Tuberculin Test is required, and any cow, so long as it remains healthy and can pass the three monthly examinations of the Veterinary Surgeon, is allowed in the herd; the milk has, however, to attain a certain standard of cleanliness which is laid down, the standard is not so strict as that of Certified or Tuberculin Tested.

There is no reason why a great majority of the milk producers in East Suffolk should not be able to produce milk of this Grade, and it is in this direction that I think most progress will be made in the coming years. Expenses incurred in producing milk of this designation in the past have been for the provision of extra labour, because the clipping and cleaning of cows, the washing of the cowsheds all takes time, and milking becomes a longer process, but since the 1926 Order these methods are obligatory in every cowshed. A sterilising outfit requires some outlay of capital, but such apparatus is very necessary for every dairyman.

The cost of the licence and the expense of the Veterinary Examinations which must be performed once a quarter falls upon the producer. What then are the benefits to be obtained by the producer for the extra expenditure of money and effort?

I think if he be a retailer as well as a producer and is close to any of the small towns in the area, and he cares to sell his milk at the same price as the other dairymen, he can obtain as large a round as he wishes. In some places he may be able to charge ½d. a pint more for the milk.

The advantage to the consumer is great. He is able to buy milk which, as each animal in the herd has had to pass a veterinary examination every three months, is very unlikely to contain tubercle bacilli. The milk will be clean and therefore will not sour for a considerable period. With these advantages it will not be necessary to boil or to Pasteurise it before it is imbibed.

Until 1926 there were no herds in the County supplying ordinary Grade "A" Milk, but this year, three owners have become licensed. Their names are as follows:—

1. Messrs. Clement Smith & Sons, Walton Hall, Felixstowe.
2. The Misses M. & E. Balfour, New Bells Farm, Haughley.
3. Mr. Alfred Harwood, Ackworth House, East Bergholt.

I sincerely hope that these producers will find that the venture upon which they have embarked will result in financial gain, and that their example will be followed by many others.

The great drawback to milk is that in so many cases it contains tubercle bacilli, and such milk is responsible for many thousands of deaths from Tuberculosis in the course of a year. In England about 6 per cent. or 7 per cent. of the mixed milks contains these organisms. On this account it is impossible for Medical Officers of Health to advise the community to drink more milk without the addition of the rider that where designated milk is unobtainable the milk should be Pasteurised or boiled before it is consumed.

It is quite possible that such treatment may alter the nutritive qualities of the milk, and where, as so often happens, the milk is Pasteurised before sale unknown to the consumer, this process of heating may be applied on more than one occasion, and there is no doubt that such treatment seriously lessens the vitamins which are naturally present.

People who live in large towns are often able to obtain Certified or Grade "A" Tuberculin Tested Milk, and either of these Milks can be given to babies without fear of their contracting Tuberculosis through this means, while the poorer classes in the towns can obtain Pasteurised Milk. The inhabitants of rural areas, however, can as a rule obtain none of these products, and the milk they drink is usually untreated, and after the child has reached the toddler's stage he drinks milk that is fresh but is possibly infected, and even if the mother has sufficient knowledge and time to treat the milk by heating it (it is rarely that she has), the means to supply the addition of Cod Liver Oil and Orange Juice to amplify the vitamins which have been considerably lessened by subjection to heat, are lacking; so that while the town child of the poorer classes gets milk containing no tubercle bacilli, it is deficient in vitamin content, and the rural child has fresh milk with full vitamin content, but runs the risk of infection by the Bovine Bacillus.

It has been advocated that the presence of Tubercle Bacilli in Milk confers immunity upon the child, and is therefore beneficial rather than otherwise. This fact has not been proved, and the damage caused to the nation by the Bovine Bacillus is so great that the theory of conferred immunity is a dangerous one, and in my opinion the very greatest care should be taken to prevent children from drinking raw milk, unless its source is known to be trustworthy, that is to say, either Certified or Grade "A" Tuberculin Tested.

The value of milk as a food was demonstrated recently by Dr. Corry Mann. He performed feeding investigations over a long period upon a group of boys. He found that an addition of extra milk to a diet produced greater growth, height and weight, and a higher state of mental and physical well being, than the addition of any other article of diet with which he experimented.

This was one of the most important dietetic discoveries for many years, and proves conclusively how serious a matter is the low consumption of milk in the Country.

The milk used in these investigations was not fresh milk but Pasteurised, that is to say, the milk was exposed for a period of twenty minutes to a temperature of 140° F. The effect of this process is to kill all organisms, but whether it alters the quality is not finally settled. As there is much controversy about the advantages of Pasteurised milk, I hope that the result of a further investigation may be forthcoming, whereby the difference of nutritional effect may be observed upon two groups of children, one whose diet is supplemented by fresh milk and the other by Pasteurised.

Once this question is settled, there should be no hesitation in regard to the line of action to be taken. If it be proved that Pasteurised Milk is as nutritive as fresh Milk, then it would seem uneconomical to produce tubercle free milk at great expense, when the tubercle bacillus can be destroyed by efficient Pasteurisation and the milk does not suffer in consequence of the process.

On the other hand, if untreated milk prove to be of greater nutritional value, Pasteurisation which at present has a great following amongst Medical Officers of Health, would receive a severe blow. This, however, is a matter for the future to decide.

A great stride was made in the right direction when the Milk and Dairies (Consolidation) Act of 1915, came into operation in September 1925.

This Act places far greater powers in the hands of the District Councils and certain obligations on the County Council with regard to cows suffering from Tuberculosis. If the Medical Officer of Health of any Local Authority has reason to suspect that Tuberculosis is caused, or is likely to be caused, by the consumption of milk which is being sold or exposed or kept for sale within the area of the Local Authority, it is his duty to investigate the source of supply and give notice to the Medical Officer of Health for the County of the facts of the case.

It is then the duty of the County Medical Officer to cause the cattle and the Dairy to be inspected and make such other investigations as may be necessary. The County Medical Officer then reports to his Committee who may, if they think fit, serve a notice on the Dairyman to appear before them or to furnish a written explanation, but an Order may not be made to prevent the milk from the Dairy or any particular cow being sold until the Order is withdrawn.

The Medical Officer of Health or the Sanitary Inspector of the District Council are empowered to take samples of milk in their area, in order to ascertain if Tuberculosis can be caused by the milk supply, and the only possible way of ascertaining this is to have the milk examined for Tubercle Bacilli. There are two ways of doing this. Firstly a microscopical examination, of which a negative result cannot be relied upon, because a small number of Tubercle Bacilli may be present but not observed. Secondly a biological examination, a very much finer and more accurate test. This consists of the injection of the deposit from centrafugalised milk into a guinea pig; the guinea pig is very susceptible to the Bovine Tubercle Bacillus, and therefore if the milk contains the bacteria, the guinea pig becomes infected, and when it is killed a month or six weeks later, it is found to be suffering from generalised Tuberculosis. If such a result be obtained it is proof positive that the milk contained Tubercle Bacilli.

In this County the Sanitary Authorities, with the exception of Lowestoft, up to the present have taken no action, no Milk Supply having been investigated in this manner. Lowestoft, however, has shown much active interest in the matter. Specimens of milk have been taken frequently and have been submitted to the County Laboratory for examination. On three occasions milk taken in this way was found to be positive, and Dr. Stott, the Medical Officer of Health advised me. In company with the Veterinary Inspector of the District, I visited each farm. In one case the milk was mixed and came from a herd of 40 or 50 cows. The Veterinary Inspector picked out six cows that he thought were possibly suspicious. A microscopical and animal inoculation test was performed on the milk from each of these cows, and in addition the same examinations were performed upon a specimen of mixed milk from the rest of the herd.

The idea of this procedure was, if possible, to isolate the particular cow that was responsible for the presence of the bacteria.

If no germs had been found from the suspicious cows, but the mixed milk showed tubercle bacilli to be present, then a further investigation would have to be undertaken with the remainder of the herd. If, however, the milk of one of the suspicious cows proved to contain tubercle bacilli, while all the other specimens were clear, the investigation would have been successful, and the offender discovered. Unfortunately the milk from the six suspicious cows and the mixed milk from the remainder of the herd gave a negative result, showing that while the milk was dangerous at the time the sample was taken by the Sanitary Inspector for examination, six weeks later the milk was apparently no longer in this condition.

This experience was identical with the two other investigations: in one, only two cows were concerned and on the first examination the mixed milk from the two gave a positive result, while the milk from each cow which was taken during my investigation proved to be negative.

The third investigation was instituted because a mixed milk from seven cows was examined at the instance of the Medical Officer of Health and found to contain tubercle bacilli.

I inspected the herd with the Veterinary Surgeon, who considered three cows to be suspicious, and a sample of milk was taken from each of these. The milk was taken from the remaining four cows and mixed. The four specimens of milk were examined biologically and all these examinations proved to be negative.

I have now given the results of the only three investigations which I have carried out during the year, and I think I am justified in considering them to be of a most unsatisfactory nature.

To recapitulate, in every case tubercle bacilli were found on the first examination, yet six weeks later the milk was shown to be free from this organism.

Here I should like to explain why the delay was necessary. It is at least a month before a guinea pig can be killed after inoculation, and therefore the District Medical Officer of Health is unaware until this time has expired, of the dangerous character of the milk. He then notifies the County Medical Officer, who is obliged to give a reasonable notice to the producer of his proposed inspection of the herd.

What is the explanation of these divergent results over six weeks?

Firstly, one must consider what the Laboratory examinations were. There is no doubt about the accuracy of the positive result by the animal inoculation test. There is no difficulty at the post-mortem of a guinea pig in deciding whether the animal was suffering from Tuberculosis or not, so that the positive results of the first three examinations of the three specimens of milk are conclusive. When, however, a milk is reported to be negative when tested by the animal inoculation test, it is possible that bacilli which were present in the milk did not find their way into the deposit which was inoculated into the guinea pig. However, in the second examinations individual cows were picked out, and therefore, the probability is that owing to the greater concentration of organisms there was a better chance of discovering the tubercle bacilli in these recent examinations than in the first. Therefore, although the technique of the procedure did not vary in the two examinations, we must bear in mind the slight possibility that though the examinations of all the second specimens were reported as negative, germs may still have been present which eluded detection.

The above is one of the possibilities and I propose to consider three others.

Firstly, the cow infecting the milk may have been removed from the herd in the interval between the examinations. Owing to the fact that the Sanitary Inspector had taken a specimen of milk for examination and that a considerable period intervened between the two examinations, the producer was in a position to remove from his herd a suspicious animal.

Secondly, the first specimen of milk though supposed to have come wholly from one farm may have been mixed in point of fact with the milk from another establishment.

Thirdly, the cow which on the first examination was producing milk containing tubercle bacilli, was giving milk free from this organism at the time the second specimen was taken.

The last-mentioned is perhaps the most likely explanation. I understand that cows may give milk containing tubercle bacilli at intervals only. Therefore, in cases such as I have described milk should be tested on one or more subsequent occasions, in order to isolate the offender.

In future I hope our efforts may meet with success instead of complete failure, and that when milk is found to contain tubercle bacilli the animal will be isolated from the rest of the herd.

The policy of the County Council concerning the taking of necessary action where the Sanitary Authority proved tubercle bacilli to be present in the milk required some consideration, and it was decided that if, when this condition of things was found to exist, the County Council immediately stopped the supply of milk until the offender was discovered, the expense entailed in compensating the producer would be enormous, particularly when a large herd was involved. It would have meant that the embargo on the supply would perforce last for a month, compensation being paid all this while, and it was considered that such an expense could not be met and that it was advisable to wait for the result of the investigation before any action was taken.

This determination was wholly justified in the three cases that were dealt with, and if on the first intimation the milk supply had been stopped, much expense would have resulted with no benefit to the community.

When an investigation resulted in the detection of a cow causing the infection, it was considered that the most convenient way was to have the cow destroyed under the Diseases of Animals Order, and this will be the procedure in the future.

The Milk and Dairies Order, 1926, was issued under the Milk and Dairies (Consolidation) Act, 1915, and came into operation on the first day of October, 1926. This Order is obligatory and takes the place of the model Regulations of the Dairies, Cowsheds and Milk Shops Act of 1885, which were not so. It is of great significance for it clearly indicates the intention of the Government towards the production of milk, and if the Order is carried out thoroughly by the Sanitary Authorities, the Milk Supply of the County should become infinitely cleaner.

Important provisions applicable to Cowkeepers regarding the production of Clean Milk are contained in Sections 22 and 23, of which I quote parts:—

Section 22.

(3) "He shall cause all dung and other offensive matter to be removed from any cowshed in his occupation in which cows are milked at least once in every day."

(4) "He shall not cause any dung or offensive matter to be so placed as to render uncleanly the access to any cowshed or milk room."

Section 23.

(ii) "Before milking is begun, all dirt in or around the flanks, udder and teats of each cow shall be removed, and the udder and teats shall be cleansed by being thoroughly rubbed with a clean damp cloth."

(iii) "The hands of the milker shall be thoroughly washed and dried before milking, and shall throughout the milking be kept clean, free from contamination and, as far as practicable, dry."

(iv) "All milking stools shall be kept thoroughly clean."

(vi) "No dry bedding or other dusty matter shall be moved in the cowshed during the milking or within half an hour before the milking commences, except so far as may be necessary for the removal of dung."

I feel that it may be some considerable time before these Regulations are carried out generally in the County in an efficient way. In the first place the experience of some of the Sanitary Inspectors in the method of clean milk production cannot be as extensive as desirable, and in these cases it would be wise if the Council concerned arranged for their Sanitary Inspector to obtain the necessary knowledge by a prescribed course, which could be obtained at one of the Agricultural Colleges.

In the second place, the agricultural labourer is well known to be conservative in his outlook and it will be in many cases very difficult to make him change his methods, however anxious his employer may be to comply with the Order, and while Miss Speakman is always ready to help to instruct, she can only do this when requested, and it will therefore require both pressure from the employer and the Sanitary Inspector, in addition to education of the latter, who must of necessity be a man with knowledge of clean milk production.

The production of clean milk will require then, firstly, the co-operation of the producer, the conversion of the milker and the education of the Sanitary Inspector. The first two of these necessities can only be expected to arrive at fruition by degrees; the last is easier of accomplishment and should be insisted upon by all Sanitary Authorities.

TABLE VI.

1926.

Public Health (Milk and Cream) Regulations 1912 and 1917.

1. Milk and Cream not sold as Preserved Cream :—

	(*a*) Number of Samples examined for the presence of a preservative.	(*b*) Number in which preservative was reported to be present and percentage of preservative found in each Sample.
Milk	133	—
Cream	4	—

2. Cream sold as Preserved Cream : Nil.

TABLE V.

SALE OF FOOD AND DRUGS ACT.

Formal Sample.

During the year 1926 the following samples were taken for examination:—

Nature of Sample.	Number taken.	Genuine.	Containing Preservatives.	Number adulterated.	Poor, of doubtful quality.	Broken in Transit.
Baking Powder ...	3	3				
Butter	13	13				
Cake (Currant	1	1				
Chicken & Ham Roll	1	1				
Cocoa	2	2				
Cream	4	4				
Custard Powder ...	1	1				
Dripping	1	1				
DRUGS.						
Camphorated Oil ...	1	1				
Iodine	1	1				
Nitre, Sweet Spirit of	1	—			1	
Quinine Wine ...	1	1				
Sal Volatile ...	1	1				
Figs	1	1				
Ginger Cordial ...	1	1				
Gravy Salt	1	1				
Ground Ginger ...	1	1				
Jam (Mixed Fruit) ...	2	2				
Lard	3	3				
Lemonade Powder ...	1	1				
Lemon Cheese ...	1	1				
Lemon Curd	1	1				
Lime Juice Cordial ...	1	1				
Margarine	9	9				
Milk	133	116		2	14	1
Milk (Condensed) ...	4	4				
Orange Juice ...	1	1				
Potted Meat	2	2				
Pork Cheese	2	2				
Rice Powder	1	1				
Sausage	5	3	2			
Sausage Meat ...	4	4				
Sponge Fingers ...	1	—	1			
Tea	1	1				
Vinegar (Malt) ...	2	2				
Whisky	2	2				
Wine (Ginger) ...	1	1				
,, (Orange) ...	1	1				
,, (Port Syle) ...	1	1				
	214	193	3	2	15	1

JASPER MAYNE,
Capt.,
Chief Constable,
East Suffolk.

List of samples containing preservative, adulterated, or of doubtful quality and action taken.

Nature of Sample.	Nature of preservative.	Nature of adulteration.	Sample of poor and doubtful quality.	Action Taken.
Sponge Fingers	Contained 7 grains boric acid per lb.			Cautioned.
Sausage	Contained 19.1 grains boric acid per lb.			Cautioned.
Sausage	Contained 72.8 grains boric acid per lb.			Cautioned.
Milk			Genuine Milk 99% Milk devoid of fat 1%	Cautioned.
,,			Genuine Milk 97% Milk devoid of fat 3 %	Cautioned.
,,			Genuine Milk 73% Milk devoid of fat 27%	Prosecution, Case dismissed.
,,			Genuine Milk 84% Milk devoid of fat 16%	Cautioned.
,,			Genuine Milk 81% Milk devoid of fat 19%	Cautioned.
,,			Genuine Milk 87% Milk devoid of fat 13%	Cautioned.
,,			Genuine Milk 97% Milk devoid of fat 3 %	Cautioned.
,,			Genuine Milk 97% Milk devoid of fat 3%	Cautioned.
,,			Genuine Milk 97% Milk devoid of fat 3 %	Cautioned.
,,			Genuine Milk 93% Milk devoid of fat 7%	Cautioned.
,,		Added water 4per cent		Prosecution Fined £2 16 0 Costs 4/-
,,			Genuine Milk 92% Milk devoid of fat 8%	Cautioned.
,,			Genuine Milk 94% Milk devoid of fat 6 %	Cautioned.
,,			Genuine Milk 86% Milk devoid of fat 14%	Prosecution Fined £5 0 0 Costs 15/-.
,,			Genuine Milk 89% Milk devoid of fat 11%	Prosecution Fined 10/- including costs
,,		Added water 17 per cent		Cautioned.
Nitre, Sweet Spirit of			46 per cent deficient in ethyl Nitrite.	Cautioned.

JASPER MAYNE,
Capt.,
Chief Constable,
East Suffolk.

VI.

PREVALENCE AND CONTROL OVER INFECTIOUS DISEASES.

Scarlet Fever.

The number of cases of Scarlet Fever notified during the year was 374, compared with 419 for last year. Four persons died of the disease, two being adults.

The character of this condition has maintained its benign type. It will be seen that more than one third of the cases occurred in Lowestoft.

Diptheria.

The number of cases of Diptheria notified during the current year was 100, and in 1925 it was 71. There were 10 deaths.

In 1925 11 patients died of this disease.

Enteric Fever.

Thirty-five cases of Enteric Fever were notified in the County during the year with 6 deaths, showing a rather high case mortality of 17.14 per cent. compared with 19 cases notified last year, when no deaths occurred.

I include a report on an investigation I made of a small outbreak that occurred in Westleton.

Outbreak of Typhoid Fever at Westleton.

A small outbreak of Typhoid Fever occurred in this district, the first case becoming infected somewhere about 12th April, 1926, and the last case being notified on the 9th July, 1926.

The cause of the disease in the original case was not discovered in the investigations which took place, and it is problematical how this first patient developed the disease. It was possibly fly-borne or dust-borne, as the patient had remained in her village during the previous month.

CASE A.

The first case, Case A, occurred in a girl, age 13, who commenced to be ill upon the 23rd April, 1926. The disease was not recognised for a short time, but on 2nd May, 1926 she was diagnosed as a case of Typhoid Fever and transferred from her home to the Halesworth Hospital.

While she was in Hospital her blood gave a positive Widal Reaction and the Bacillus Typhosus was found in her stools.

She made an uninterrupted recovery and was discharged on 11th June, 1926, after one negative result was given from the bacteriological examination of the stools and urine.

Her family was composed of:—

Father.
Mother.
Sister, aged 21 years, Case D.
Sister, ,, 13 ,, Case A.
Brother, ,, 10 ,,
Brother, ,, 1 year, 3 months.

The parents obtained their livelihood by means of selling milk produced in their small dairy. Two cows only were kept, and milk was sold and delivered to fourteen householders.

Directly the condition of Case A was recognised to be that of Typhoid Fever, the Medical Officer of Health for Blything stopped the milk supply, and no milk was sold again until the 23rd May, 1926. During the time that the milk supply was stopped the only people who drank it were members of this family.

Dr. J. Aylen, the Medical Officer of Health, wrote to me after no milk had been supplied for nearly three weeks and no further case had come to light, asking how long the supply was to be stopped, and I wrongly advised him that I considered it was now safe to sell the milk again. I was not aware at the time, however, that no investigations had been made, either as to the blood or stools of the inhabitants of the house, neither was I aware of the irregular practice that had occurred at the Hospital, to which I refer later.

Therefore, because of my advice, milk was again sold from the 23rd May until the 14th June, 1926. Fortunately, however, as will be seen later, the milk was not infected during this time and no one contracted the disease through drinking milk after the 2nd May, 1926.

On account of the fact that further cases of Typhoid arose and the Medical Officer of Health for Blything was away upon his holiday, Dr. F. K. Marriott, the Medical Practitioner in charge of the cases telephoned to me, and I investigated the outbreak upon the next day, having intimated to Dr. de Nyssen, who was acting for Dr. Aylen, that I was going to do so.

All the members of the family lived in the same house as Case A. during her incubation period and the first part of her illness, and as she was ill for eight days before the disease was recognised, every member of the family ran a great risk of infection, Neither father, mother, nor brother aged 1¼ years developed clinical Typhoid, but the sister aged 21, became infected and developed the disease later on, although she was not infected in the house.

While Case A was in Hospital a grave irregularity occurred, for not only were all the family who visited the patient allowed to kiss her, but certain friends were admitted to this privilege. In addition to this the soiled night clothes of Case A were given to the mother by the Hospital Officers, in order that she might wash them. This operation was performed in the large scullery which adjoins the dairy. The mother, fortunately being afraid of the garments, put them immediately into a large copper of boiling water and burnt the paper.

I must note that the Hospital is not an Infectious Diseases Hospital.

During the time that the milk was stopped, that is from 2nd May to 23rd May, 1926, it was consumed by the four members of the family living at home and was subjected to no sterilisation of any sort.

CASE B.

The next person to be taken ill was a small female child, Case B, in the village, aged 3. She became ill on the 8th May with Bronchopneumonia. She entered the Typhoid state on the 27th May, 1926. Enteric Fever was not suspected until further cases were recognised. Her blood taken on the 12th June, gave a strong positive Widal Reaction. She began to improve but intestinal obstruction intervened and she died on the 17th June, 1926.

On making enquiries as to where the following supplies were obtained—water, milk, bread, sweets, groceries, and fish—it was found that the only similarity of supply was the water from the Town Well, which was examined and found to be negative, and was not concerned in any of the other cases. However, I learnt that on 2nd May Case B had been to tea at the house of a neighbour, Mrs. X, who left the district very shortly after this meal, and that Mrs X took her milk supply from the dairy at which the disease occurred.

I think the most probable source of Case B's infection was that of Mrs. X's milk on the 2nd May. However, Mrs. X visited Case A while she was ill, kissed her, and subsequently visited Case B and kissed her, and so there is a slight possibility that the disease was conveyed from one patient to the other by Mrs. X, although she did not suffer from clinical Typhoid herself.

This case might have been the cause of a large outbreak of Typhoid Fever, but fortunately was not. The patient's father was a manufacturer and vendor of Ice Cream and carried on his business as usual, and actually sold Ice Cream on Whit Monday, the 24th May at a large Fête at Yoxford, some thousands of persons being present. Had the Ice Cream been infected, a large outbreak might have occurred, but as no cases materialised from this source, it can be assumed that this was uncontaminated.

On the 17th June, blood was taken from the father and mother of Case B, two aunts and a nurse, all of whom had been in contact with the patient. Each gave a negative Widal Reaction but one aunt, Case F became infected somewhere about this date and subsequently developed the disease.

CASE C.

Male aged 50–60. This patient consumed milk obtained from the dairy, and as he drank this until the 2nd May when the supply was stopped, one must assume that he was infected between the 26th April and this date, and as his water supply and various food supplies did not coincide with those of cases A and B, I think there is not a shadow of doubt that he was infected by the milk from the dairy where the first case occurred.

He became ill somewhere between 10th and 15th May, gave up work on the 29th May and was seen on the 31st by his doctor. The disease was not recognised until 8th June, when a typhoid ulceration perforated. He was then removed to Hospital and died three days later.

CASE D.

Female, aged 21 years, a sister of Case A, proceeded to Halesworth Hospital on the 9th May to see her sister who was an in-patient at that time, kissed her, and developed Enteric Fever fourteen days later. She was removed to the East Suffolk and Ipswich Hospital on the 29th May.

As Case A was removed from home on the 2nd May and Case D was living at Dunwich as a domestic servant, for she had left home for service shortly before Case A was taken to Hospital, there is no doubt that the kissing on the 9th May resulted in the infection of Case D. This is not at all improbable as the Typhoid bacillus is often present in the saliva of patients suffering from Typhoid Fever. How such an occurrence was allowed in the Hospital is incomprehensible.

This patient made an uninterrupted recovery and after the stools and urine proved to be negative she was discharged from Hospital.

CASE E.

Male, aged 45. This patient was removed to the Ipswich Isolation Hospital on the 15th June, 1926, and also made an uninterrupted recovery. He lived over a mile from Westleton but worked alongside Case C.

CASE F.

Female, aged about 20 years, was probably infected about the 14th June. She was taken ill on the 26th June, but proceeded to Oulton Broad and there was diagnosed as a case of Typhoid Fever.

She showed a positive Widal Reaction and was very seriously ill for some time, but subsequently recovered. She never kissed the child Case B, but washed napkins and clothing and probably was infected from this source.

Much of the foregoing information was obtained on the two days of my investigation, namely 12th and 17th June.

Blood was taken from Cases B and E, and, as I have said, these showed a strong positive Widal Reaction. In addition, I thought it advisable to take a specimen of blood from every person of the first family living at home. The following are the results:—

Father	Slight plus Widal.
Mother	Medium ,,
Male, aged 10	Medium ,,
Male, aged 1¼	Slight ,,

This is rather a surprising result; it appears that every member of this family was infected by the Typhoid Bacillus, but not to such an extent as to cause clinical Typhoid disease.

However, on enquiring into the method of performing the Widal Reactions, I discovered that no positive or negative controls had been done; we may, however, take the blood of Cases B and E, which gave strong positive results to be as a positive control. Therefore, though it appears that all these persons may have been infected by the Typhoid bacillus and did not develop signs of clinical disease, nevertheless, without a negative control there is no proof that this is so, and it may mean that it was entirely due to some peculiar condition of the particular culture which was used in the serum agglutination reaction.

However, I considered the state of things was sufficiently serious to recommend Dr. de Nyssen, the Acting Medical Officer of Health, to immediately stop the milk supply for a short time until specimens of the stools and urine of all these persons had been examined and found to be negative. These examinations were performed at the County Laboratory and in every case gave a negative result. A second examination confirmed this.

Specimens of milk were also taken for examination and found to be negative.

I advised Dr. de Nyssen that after these examinations it was now safe to allow the milk to be sold provided the house and its contents were efficiently disinfected.

On my inspection of the 17th June, I visited the houses of two families who had consumed the milk from the dairy. Mr. and Mrs. Y, of the Post Office had taken the milk the whole time and had not suffered from the disease. Their bloods gave negative Widal Reactions. In addition I took specimens of blood from Mrs. Z and her son, which also gave negative Widal Reactions.

I also took a specimen of blood from a girl, Case W, who had kissed Case A while she was in Hospital. This child had suffered from no clinical disease, and her blood gave a negative Reaction. The blood of her mother was examined as well as she had been in contact with Case B. This gave a negative result.

It will be remembered that I suggested that Case B became infected while having tea at the house of Mrs. X. I fortunately had the opportunity on the 11th August of interviewing Mrs. X. She stated that the tea occurred on 2nd May and on the 6th May she and her family went to London.

Her eldest son aged 9, was taken ill somewhere about 17th May. He was seriously ill with a temperature of 102° for ten days, and suffered from vomiting, diarrhoea and headache; he had a furred tongue with extremely bad breath and was delirious at night. He was in bed for three weeks.

The youngest son, aged 6, became ill about the 6th June, and had similar symptoms to the elder boy. His blood was taken after a week's illness by the Medical Practitioner attending him in London, but this proved to be negative to Typhoid Para A and Para B.

The second son, aged 8, remained well.

Taking into consideration the fact that these children had run a probable risk of contracting the disease by milk infection, it would lead one to suppose that the eldest of these children had been infected in this way and had suffered from Typhoid Fever, and that the youngest boy had become infected from his eldest brother.

The first specimens of blood were taken early in the disease and at a time when one would not expect a positive result. I was able, because the family returned to the County for a holiday, to take the further specimens of bloods of the three boys. The result of the Widal Examinations showed:—

Male, age 9	mild positive.
,, age 8	,, ,,
,, age 6	medium ,,

Again, unfortunately, no controls were done, but fortunately another blood which I took on the same day from a very definite clinical case of Typhoid Fever, proved to be a strong positive, and so in this case we can assume that a positive control was performed with a satisfactory serum. No negative control was done, and therefore it is impossible to say whether this mild positive reaction was given because of a slight infection which had not developed into clinical disease, or whether it was due entirely to an abnormal cultural reaction, due possibly to the age of the culture.

Though it has not been proved definitely that these children suffered from Typhoid Fever, I must admit that it is with reluctance that I abandon the theory that they suffered from Enteric, and I feel in spite of all the reactions that it is possible they did so.

To recapitulate, there were six cases, two of whom died. Case A was infected from an unknown source; she infected the milk supply which infected Cases B and C. These were the only two milk infected cases and the infection occurred before the 2nd May, when the milk was stopped for the first time.

Case D was infected directly from Case A through kissing in the Hospital. Case E was infected directly from Case C while the two men were working together. Case F was directly infected by Case B.

Milk was again sold between the 23rd May and 14th June, and was not infected at the time and no further cases resulted.

As the result of my inspection it was found that four members of the first family showed slight positive Widal Reactions and were possibly infected by the Typhoid Bacillus, and on account of this the milk was stopped again until these persons were found to be free from the Bacillus Typhosus, when it was again allowed to be sold.

No water or food supply other than the milk appeared to account for the outbreak. Though fourteen families consumed milk from the infected dairy, only two persons can be considered to be infected in this way.

The recognition of the first case on the 1st May and removal to Hospital on 2nd May, the first stoppage of the milk supply, limited the outbreak to a small number.

Case.	Age.	Sex.	Approximate Date of Infection.	Probable Source of Infection.	Result.
A	13	F.	11/4/26	Unknown	Recovered
B	3	F.	2/5/26	Milk Supply (through Case A)	Death.
C	50–60	M.	30/4/26	Do.	Death.
D	21	F.	9/5/26	Case A (kissed)	Recovered.
E	45	M.	End of May.	Case C with whom he worked	Recovered.
F	20	F.	14/6/26	Case B, whom she helped to nurse.	Recovered.

Milk supply stopped from May 2nd to May 23rd, and from June 14th to early in July.

I have to thank Dr. Marriott of Yoxford for the great interest he took in the outbreak and the help he gave me in this investigation.

Puerperal Fever.

Eighteen cases of Puerperal Fever were notified and 9 cases of Puerperal Pyrexia, compared with last year's figure of 16 cases of Puerperal Fever. Two deaths are reported as being due to this condition compared with 3 last year.

During 1926 Regulations were issued altering the mode of notification. Previously Puerperal Fever was notifiable, but owing to the fact that there was no precise definition of this disease, many cases which should have been notified were not, and hence, Puerperal Pyrexia, a condition defined in the Regulations, became notifiable.

Puerperal Pyrexia is a condition from which a woman suffers if, within 21 days after childbirth or miscarriage, she exhibits a temperature of 100.4° F. or more which is sustained during a period of 24 hours or recurs during that period.

One of the chief reasons for this extra notification was in order that these cases might obtain suitable treatment as early as possible. This treatment can be administered by two Authorities, firstly, the Authority responsible for the isolation of infectious disease, in a County the District Councils, and secondly, the Authority responsible for the carrying out of the Maternity and Child Welfare Act, which is the County Council.

As the condition very rarely requires isolation for the purpose of limiting the spread of infectious disease, the responsibility of treatment rests almost entirely with the County Council, and I therefore recommended the County Council to set aside a sum of money for such treatment. Unfortunately, owing to the financial position, it was necessary for this item to be taken out of the estimate and therefore no treatment of this sort can be considered until 1928.

Pneumonia.

Two hundred and sixteen cases of Pneumonia were notified this year with 131 deaths. In 1925 219 cases were notified and 111 deaths.

As I mentioned in my previous Report, Pneumonia is a disease in which good nursing in the very best surroundings is highly essential and it is almost impossible to nurse a case efficiently in a country cottage. It is a pity that Isolation Hospitals are not used more frequently for this definitely infectious disease.

Encephalitis Lethargica.

Nine cases of Encephalitis Lethargica were notified with 7 deaths. Last year showed 14 cases with 9 deaths. It is encouraging to see that this year there is a slight diminution in the number of cases of this disease.

The very large proportion of deaths which occurred this year amongst the notified cases leads one to suspect that many cases have occurred which have not been recognised. This unfortunately, owing to the difficulty in diagnosis of slight cases is inevitable, and many are only recognised as definitely suffering from the disease when complications attacking the nervous system develop at a later date.

It is well known that in many cases, particularly in children who have suffered from the disease, the character completely alters, and a tractable child becomes quite impossible to control. These cases are extremely sad ones and at the present time there is no method of dealing with them, as the present Mental Deficiency Act can only deal with persons who have suffered from an early age. It is to be hoped that legislation will soon enable treatment to be provided for these children.

Anterio-Poliomyelitis.

While in 1925 2 cases only were reported, this year 17 cases were notified. This disease was prevalent in many districts in England during the latter part of the year, and naturally received a great amount of publicity. There was a definite outbreak in Suffolk in the village of Dennington, of which I include a detailed account below.

Outbreak of Anterio-Poliomyelitis.

The small, remote and ancient village of Dennington in the heart of the Administrative county, with a population in the year of the last Census of 655, suffered from a visitation of an epidemic disease, the cause of which to the inhabitants was as mysterious as its effects were disastrous. An unknown fever which struck down healthy persons, killing four, three within a few days, naturally caused the greatest consternation and gave rise to rumours of the most gloomy nature.

This dramatic and killing disease was none other than Acute Anterio-Poliomyelitis, or Infantile Paralysis, a term which is more familiar to the lay mind At the time of the epidemic the disease had not had the publicity it received later.

I do not propose to enter into a long discussion of the morphological and pathological characteristics of the condition, nor shall I dwell at length upon the epidemiological and clinical sides of the subject, nevertheless, I propose to include a short statement in which all of these branches of Science affecting this particular disease will be touched upon.

In the first place, Infantile Paralysis, to call it by its familiar name, is a disease which occurs as a rule sporadically, but at certain times the disease may become epidemic, and outbreaks of large dimensions have occurred in other countries particularly has this been so in America.

The condition is considered to be due to an organism so small as to be a filter passer.

The disease affects the nervous system and pathologically shows wide divergencies in different cases. In the first place the membranes of the brain and spinal cord are affected and are found on post-mortem examination to be in a state of congestion. The anterior horn cells of the grey matter of the spinal cord are the main seat of the affection of the nerve cells, but the grey matter of the brain is sometimes affected, and the disease is often then named Encephalomyelitis. Destruction of the nerve cells often occurs and this is invariably followed by paralysis of the muscles which receive their nerve supply from these particular cells.

The disease is infectious and is notifiable. The infectivity of the condition, however, is very slight and it is the rule for only one person to be infected in any particular family, but the exception occurs fairly considerably.

It appears that most persons become immune during childhood, either owing to their suffering from the disease in so mild a form that it is not recognised, simulating, perhaps, a slight sore throat or cold, or it is possible that, though no disease occurs at all, the immunity is conferred by small doses of infection. At all events, in sporadic cases, children as a rule only are infected, while in outbreaks of the disease, children and young adults only suffer.

The infection is to be found in the mucous membrane of the nose and throat and it is probable that one person infects another by sneezing, coughing and talking, but the few are susceptible and the many immune; in addition it has been proved definitely that the disease may be conveyed from one person to another by an apparently healthy individual, called a carrier.

The clinical manifestations of the disease are many and various and this will be amply seen in a description of the cases that occurred in the Dennington outbreak. The salient symptoms, however, are temperature, headache, backache, pains in the limbs, sore throat, and dirty tongue, which may be followed by paralysis of groups of muscles which, if the patient live, often leaves some permanent paralysis.

The fatality rate is usually given at about 5 per cent.

The treatment consists generally in administering hexamine by the mouth and on rare occasions injection of serum from a patient who has recovered from the disease within five years, but this serum must be given within 36 hours of the onset of the disease if paralyses are to be avoided. This latter treatment, I understand, is still in the experimental stage and I imagine that a serum such as this must be extremely difficult to obtain.

The treatment of the paralyses is absolute rest in the first period of illness, secured by sand bags, or splinting, and the correction of any over action of opposing muscles which have not been affected to prevent the destruction of the muscles whose nerve cells are damaged. In addition the affected limb should be kept warm.

From the Public Health point of view it is wise that patients should be isolated to prevent others from becoming infected and for persons who have been in contact with the patient to be kept under supervision. The precaution of spraying the throats and noses of contacts with an antiseptic should be taken, and in addition an antiseptic gargle should be provided for their use. It is usual also to disinfect after the patient has been removed to Hospital or after recovery.

This, then, is a general but short survey of the conditions of things relating to Infantile Paralysis as we know them to exist at the present time. I will now proceed to discuss the events as they arose in Dennington.

It is a noticeable fact about the disease of Polio-myelitis that it is most prevalent towards the end of a hot, dry Summer, and the climatic conditions at the time at which the outbreak commenced in Dennington were favourable in this respect. It will be remembered that the rainfall in August and September was very low and the weather on the whole maintained a temperature above the normal.

It is impossible to say how or where the first case became infected. A servant girl, aged 16 Case A, came home from London to Dennington for a holiday. She remained in the village for a fortnight and returned to London on August 12th, feeling unwell. She went to bed on arriving at Kensington and died two days later. A post-mortem examination was performed and revealed what was thought to be Encephalitis; the cause of the Encephalitis, however, was only recognised when Poliomyelitis spread in the village and was diagnosed.

Her small brother, Case B, aged 3, became infected from Case A and he developed the disease which was of the abortive type on August 20th, recovering within three or four days. This case was not, of course, recognised until the outbreak was investigated. Dr. Armstrong, who attended the child, considered that it was a case and taking all things into consideration, I agreed with him about it and have included it.

Nothing further occurred until September 3rd, when a girl of 22 years of age, Case C, suffered from a paraplegic type of the disease. There was nothing to suggest that this girl was infected by either of the first two cases, and the disease was probably carrier-borne.

The next case, Case D, I include in the series, although he did not live in the village of Dennington. His habitation, which was in the village of Badingham, was some three or four miles from the focus of the epidemic, and he had not visited Dennington. This child suffered from some occular paralysis and the infection must have been conveyed by a carrier of the disease.

These four cases I considered to be the first stage of the epidemic. As will be seen, progression up to this point had been slow. The cases had a remarkable variety; the first ending fatally very quickly, one developing extensive paralysis, one slight paralysis and one being abortive. However, on September 25th a youth of 17 years of age, Case E, was taken ill, and after a remission of symptoms became very ill indeed, developing extensive paralysis. It is possible he may have been the infecting agent for the next three cases which occurred, all ending fatally, as he lives within a stone's throw of two of these cases, and in the same house as the other.

On the 29th September a little girl of 9 years of age, Case F, became ill and died with respiratory paralysis on the 1st October, 1926.

Another case commenced on the 29th September (Case G), an adult, age 22 years. She was a domestic servant at Yoxford and had been in the habit of coming home to Dennington on her half days, and had been home on September 25th. She died of respiratory paralysis on the 15th October.

There was no evidence to show that Case E had come into contact with either of these two patients.

On October 1st, a baby boy aged 13 months, Case H, a brother of Case E, developed the disease and died six days later. It is reasonable to suppose that he was infected by his brother about September 25th.

During the period from September 25th to October 1st the disease appears to have been of an extremely virulent type; four persons developed the disease, three succumbed and the other suffered from extensive paralysis. This was the peak of the epidemic and the second stage. After this ferocious outburst the disease lost much of its virulence and a group of cases followed in which the abortive type predominated.

On October 6th, Case I, a boy aged 13 years, became ill and suffered from facial and pharyngeal paralysis. This case marked the waning of the virulence.

On October 7th, Case J, a boy of almost 15 years of age had a short abortive attack of the dromedary type.

On October 9th, Cases K and L, two small boys, aged 12 and 6 respectively, suffered from abortive attacks, one being definite and the other suspicious, but I included the latter as a case because of the proximity to the other cases.

On October 12th, Case M, age 5½, a sister of Case J, had what I considered to be an abortive attack, and assumed that she was infected by her brother, the incubation period was six days.

On October 13th, a small boy aged 12 years and 10 months, Case N, commenced an attack which proved to be abortive.

On October 19th the last case occurred in a boy of 7 years 10 months, Case O. He lived next door to Case K, who suffered from an abortive attack. Both of these cases lived in an isolated double-dwelling cottage, 300 yards away from the road or any other dwelling. I think we may assume that this child became infected by Case K, and therefore the incubation period was ten days. This last case was one of some severity. The boy was severely ill for ten days and had considerable paralysis.

The epidemic extended over ten weeks, commencing with a fatal case and ending with a severe one, with a period of intense severity in the seventh week. It is impossible to trace how the infection spread, but four cases appear to have obtained their infection from four other definite cases, the incubation periods being as follows: nine, seven, six and eleven days.

It is interesting to consider the grouping of the patients and to study the geography of the locality. The first cases A and B, occurred in the Badingham Road, about half a mile away from the place where most of the cases occurred. Cases C, E, F, G, H, I, L, and N, lived in the Badingham Road, and the houses in which they lived were all within 200 yards of each other. This cluster of cottages provided an opportunity for infection to spread. Cases J, K, M and O were three-quarters of a mile from the main outbreak, but about half a mile apart, M and J living in the same house and K and O living next door to each other.

It will be seen that fifteen cases occurred altogether, fourteen of these in the village of Dennington itself, and within that village nine being close together in the Badingham Road.

The number of people living in the Badingham Road at Dennington is 97, of which 48 I know to be children and young adults (that is to say under 30 and, therefore, susceptible); as there are one or two of whose ages I am not quite sure, I will add two more, which brings the number up to 50. I here should state that though I take the age of 30 to be the limit of infection, cases occur occasionally above that age.

There were 50 susceptible living within 100 yards of each other, and out of these 50 persons, 9 became infected.

Eighteen per cent. of the susceptible persons in this small area contracted the disease, and 6 per cent. of the whole susceptible population died. This appears to be not only an enormous proportion affected, but a very high mortality, and the explanation of this seems to be that in an isolated village such as Dennington, there may have been little chance of the population becoming immune to Poliomyelitis, and that the disease happened to strike an unprotected locality.

In order to show the high attack rate and mortality rate, let us compare it with a large place such as Ipswich; we will take the population of Ipswich to be 80,000, and the susceptible population (that is to say, children and young adults under 30) to be 50,000, if this disease had attacked Ipswich with exactly similar ferocity as it did the Badingham Road portion of Dennington, 9,000 persons would have been smitten with the disease and 3,000 would have died. This is, of course, not given as a possible parallel, and the comparison is drawn to give an idea of the high proportion affected in the Badingham Road.

The clinical aspect of the disease was such as to cause considerable doubt as to what the condition was and in fact there were very many different types. This is what is to be expected in an epidemic and I have given details of each case at the end of this Report.

The first case, Case A, as I have mentioned, was thought to be Encephalitis; Case C was considered to be transverse Myelitis, and Case G was thought to be Pneumonia.

Dr. C. W. Wylde Armstrong, of Framlingham, who took the greatest interest in the epidemic, asked me on the evening of October 6th to see some cases with him, and said he had an outbreak of disease which appeared to be very puzzling.

On October 7th I visited Dennington with him and saw Case E and learnt about Cases F, H, and C. We came to the conclusion that the probable cause of the outbreak was Anterio-Poliomyelitis, and I arranged for Dr. Cade to take a specimen of the cerebro-spinal fluid from Case E. This was done and the fluid was clear and under pressure; this eliminated other conditions and confirmed the diagnosis and we immediately started to look for further cases. Gradually these were picked up and fitted into the picture of the epidemic.

By the time that the cause of the epidemic had been established, I believe that all the cases, with the exception of Case O, who suffered from the disease, had been infected, and that those persons who had not already exhibited symptoms of the condition were by that time incubating the disease.

I wrote to the Ministry of Health for advice and arranged for a Health Visitor to give up her other work temporarily and visit the contacts of every case to spray their noses and throats with 1 per cent. hydrogen peroxide in normal saline and leave with them 1 in 5,000 potassium permanganate for the purpose of a gargle.

This precaution was one that was advised in cases of Encephalitis Lethargica by the Ministry of Health in their Memorandum 45/Med. issued in May 1924.

The Dennington school was closed for three weeks when the disease was definitely recognised as being Poliomyelitis. Owing to the fact that certain men in the village were employed as Porters at Framlingham College, a Public School for Boys, these individuals were kept away from their duties for fourteen days after the occurrence of the last case, and the children that attended Framlingham for scholastic purposes were treated in like manner. It was extremely fortunate that no cases occurred in this town with a large Elementary School, a Secondary School for Girls, and a Public School of 200–300 boys.

I think it would be unwise, considering the difficulty of the subject of the epidemiology of Poliomyelitis, to attempt to draw any really scientific conclusions from the outbreak except that:—

(1) It was infectious.
(2) Certain persons in the village were susceptible and others immune.
(3) Perhaps all or most of the villagers in the Badingham Road came into contact with the infection.
(4) In this epidemic in the few cases where it was reasonable to suspect that one particular case became infected by another the incubation period varied from six to eleven days.
(5) The outbreak died out naturally and was almost over when the cause was recognised and that the methods taken to quell the spread of infection probably did not influence the situation.

I have to thank Dr. Armstrong for his whole-hearted assistance and the interest he took and the time he expended with me in the investigation of the epidemic. Without his help I could not have gained the information that I have been able to record in this Report.

A Detailed Account of the Fifteen Cases of Anterio-Poliomyelitis.

CASE A. Female, age 16. *Ill* 12-8-26. *Died* 14-8-26.

I made many enquiries and found no evidence of anything that can be considered to be Anterio-Poliomyelitis until the case, which I will therefore call "Case A" occurred.

At the end of July, Case A, a domestic servant in service in Kensington, returned to her home at Dennington for her annual holiday, and she spent this with her parents. On the 12th August she returned to the house of her employer at Kensington, but complained of a headache on the morning of her return. She appeared to improve as the day went on, but on her arrival at Kensington at about 5.30 p.m., her head was very bad, and in consequence she went straight to bed. On Friday, 13th August, her condition was about the same, but she still complained of head pains and remained in bed. During the evening of Friday, August 13th, she said she had no power to use her limbs and at about 2.30 a. m.on Saturday, 14th August, the deceased was made comfortable and left in bed, but called out at about 3 a.m., and asked her fellow servants to lift her out of bed to use the chamber, after which she was being lifted back into bed when she collapsed. A Doctor was called and found deceased was dead.

Dr. H. B. Weir performed a post-mortem examination, and the following is the result of this:—

> "No marks of injury. The brain was extremely congested, all the small vessels standing out clearly and giving the appearance of a 'pink brain.'
>
> "The left pupil was slightly larger than the right.
>
> "The lungs were congested at their bases and slightly oedematous with a quantity of frothy mucous in the trachea.
>
> "The heart, liver, spleen, kidneys, stomach and intestine were healthy; the stomach contained a quantity of fluid with remains of food and showed no signs of irritation.
>
> "The pelvic organs were normal.
>
> "Cause of Death: Encephalitis (acute) Syncope."

I subsequently wrote to Dr. Weir, telling him of the outbreak and he agreed with me that this was undoubtedly a case of Poliomyelitis of an encephalitic type.

The household at Dennington consisted of:—

Father, aged	43	
Mother ,,	37	
Female ,,	16	Case A died (encephalitic type).
Female ,,	14 years 10 months.	
Female ,,	13	
Male ,,	10	
Male ,,	3	Case B (abortive type).

CASE B. Male, aged 3. *Ill* 20-8-26. *Recovered* 23-8-26.

Case B was the small brother of the first case, and he probably obtained his infection from his sister. He was an abortive case and no paralysis of any sort occurred. Dr. Armstrong, who was in charge of this patient, having regard to subsequent events, is quite sure that this was a case of Poliomyelitis. The child suffered from very severe headache and pain in the back, vomited, had a temperature and a very dirty tongue. He made a complete recovery.

CASE C. Female, aged 22 *years. Ill* 3-9-26. *Able to get about a little, but not much. Still under treatment.*

It is impossible to say how Case C became infected, probably by means of a carrier. Her residence was several hundred yards away from that of the Cases A and B.

She became ill on the 3rd September and complained that she had a bad headache and that she ached all over. Dr. Armstrong, her Medical Attendant, told me that she suffered from what appeared to be typical Influenza for three or four days and ran a temperature. The latter went down and she was up for four days when she had a recurrence of her symptoms and on 10th September she went to bed with a severe headache and high temperature.

On September 11th she complained of a pain in her back and neck which increased with movement, and severe pain in both legs. She was constipated and was unable to micturate for 36 hours.

On September 12th she had completely lost the use of her legs and could not lift her head from the pillow.

Dr. Armstrong stated that she had paralysis of both legs and loss of knee jerks. A consulting physician was called in to see the case and diagnosed it as one of Transverse Myelitis and arranged for her to go into Hospital when a bed was vacant.

I examined her on October 7th and found that she had paralysis of the extensors of the foot but no paralysis of the flexors. The gastrocnemii muscles were contracting strongly and well. I elicited the fact that these muscles were never affected from the first.

She was able to extend her toes very slightly, but she was unable to flex her thighs at all. The muscles showed no obvious signs of degeneration; there did not appear to me to be any flabbiness and I could see no sign of definite wasting. An examination of her reflexes showed that no knee and no ankle jerks were present, and that there was a slight plantar flexor in both feet. Micturition and defacation were normal and had been so except for one day at the commencement of the illness.

This appeared to me to be a definite case of Anterio-Poliomyelitis of the transverse myelitic type and it followed a well-recognised course, sometimes called Dromedary, because there is a remission of symptoms for two or three days shortly after the illness sets in.

She was removed to Hospital on the 19th October.

The household consisted of:—

Father, aged 68
Mother ,, 59
Female ,, 22 Case C (transverse myelitic type).

CASE D. Male, aged 4 *years. Taken ill* 18-9-26.

Case D, which I think there is no doubt was one of Poliomyelitis, did not occur in Dennington, but in the neighbouring village of Badingham, a distance of about three miles.

This small boy on September 18th appeared to be normal at dinner time. He went out to play and came in about 3.30 p.m. complaining of feeling sleepy. He went to bed and vomited violently several times during the afternoon and evening. The child took fluids only and apparently slept fairly well that night.

On the 19th September the child was better and got up for breakfast. The mother then noticed a squint for the first time. The child went for a walk but was brought home crying and was put to bed, suffering from a headache, he also had a temperature and was said to have convulsions. Later there was retention of urine for a short time.

Dr. Armstrong attended daily and the child remained in bed until October 1st.

This child did not visit Dennington and apparently did not come into contact with any of the cases there. The assumption must be that infection was carried.

The occupants of the house were as follows:—

Father, aged 46
Mother ,, 47
Female ,, 12
Female ,, 10 years, 10 months
Male ,, 9
Male ,, 7 years, 10 months
Female ,, 5
Male ,, 4 Case D. (paralytic type limited).

CASE E. Male, aged 17. *Taken ill* 25-9-26. *Still under treatment. Able to get about. Still has arm splint.*

It is impossible to say where this boy obtained his infection, but it is obvious that it could not have been from Case C, or D, and therefore one must assume it was due to a carrier. He lives, however, about 100 yards from Case C.

I learnt that this patient came home from work on Saturday, September 25th feeling unwell, and that he went to bed and slept for three hours on end. On the next day he recovered somewhat and got up and went to Church in the evening.

He proceeded to work until Friday, 1st October, and he then complained of a bad headache and diplopia. In addition he was stated to have a reeling gait. He went to bed and gradually relapsed into a semi-paralysed condition.

I examined him on the 7th. His intellect was dulled and it was difficult to elucidate facts from him. His tongue was thickly furred. He had no occular paralysis, in fact no paralysis involving any of the cerebral nerves. He had almost complete paralysis of both arms and hands, slight contraction of the fingers only being possible. His left leg was partly paralysed but he was able to move this slightly with a great effort. There was no paralysis of the right leg, but when told to move his arms this leg was moved about in his efforts to move the paralysed limbs. There was no alteration in sensation. He had no plantar reflexes, ankle jerks, knee jerks, cremasteric or abdominal reflexes, and his sphincters were normal. He had neither suffered from constipation or difficulty in micturition.

On October 28th the paralysis of the upper arm was still marked, but there was slight movement in these muscles. Most of the movement, however, was accounted for by the shoulder muscles. He could move his fingers and hands weakly. His legs were much improved, the right normal and the left half normal. The right knee jerks present and the left absent.

The occupants of the house were as follows:—

Father, aged 56 years.
Mother ,, 38 ,,
Male ,, 17 ,, Case E (paralytic type extensive).

Male ,, 13 ,,
Female twins 8 ,,
Male aged 7 ,,
Male ,, 13 months. Case H died (paralytic type).

CASE F. Female, aged 9 *years. Taken ill* 29-9-26. *Died* 1-10-26.

This child, who lived close to all the cases in the Badingham Road, got up on the morning of September 29th feeling a little sick. She vomited slightly and had a little diarrhoea and in addition she complained of headache.

There were nine members of the family, and the father, mother and two children suffered from diarrhoea on the same morning. These persons all recovered during the day and had no further symptoms, and I considered that they were not concerned in any way with the outbreak.

She did not go to School on that day, but appeared to get better as the day grew older, and in the afternoon was quite bright.

On September 30th she arose in the morning but felt dizzy and fell over while coming downstairs to breakfast. Her mother put her to bed because of this, but stated that the child appeared to be quite well once she was there. At night she complained that her neck hurt her and that it was stiff. By 10.30 she had an aching back and at 12 o'clock at night her mother got her out of bed to sit upon a commode and said that the child's back collapsed as though she had no strength in it at all. She was then put back to bed, her mother noticing that her heart was beating very fast. During the night she wandered a little.

On October 1st the child was seriously ill. Her pulse remained very fast, and in addition there was marked Dyspnoea. Dr. Vinter was called in and found respirations of about 50, temperature 102°, sore throat and very rapid pulse. He naturally suspected Pneumonia, and examined the lungs very carefully without disturbing the child unduly, but could find nothing in the chest.

The child died at 2.30 p.m. on the same day from what appeared to be respiratory failure as the dyspnoea increased and she became cyanosed, her lips being almost black. The child realised that she was going to die and told her mother so half an hour before death intervened.

The family consisted of the following persons:—

Father,	aged	42	
Mother	,,	40	
Male	,,	15	
Female	,,	14	
Female	,,	12	
Male	,,	10	
Female	,,	9	Case F. died (paralytic type).
Female	,,	6	
Female	,,	5	
Female	,,	4	
Female	,,	2	
?Male	,,	5 months.	

CASE G. Female, aged 22 *years. Domestic Servant. Became ill* 29-9-26. *Died* 5-10-26.

Case G had been in service for some time at Yoxford and was in the habit of coming home to Dennington on occasions. On September 26th she was at home for an hour or so and on September 29th she proceeded home, having given up her situation.

On this day she did not feel well and fainted while at Yoxford, and on her arrival home was noticed to be looking unwell.

On September 30th she was feeling better and went to Ipswich and spent the day there.

On October 1st she was not at all well and suffered from a bad headache, but in spite of this she went for a bicycle ride.

On October 2nd her headache had increased in intensity, but she kept about and went to Framlingham.

On the morning of October 3rd she got out of bed but found that she was unable to stand and she then returned to bed and vomited.

The mother of the patient on being questioned was quite definite that on this day she was quite unable to use her left hand and that her right hand was partially useless.

On October 4th the severe headache continued, she vomited on several occasions, and then had a pain in her back. She had a high temperature and the paralysis of the hands continued. The doctor's attention was not called to this helplessness and he did not observe it.

On October 5th dyspnoea ensued and she became cyanosed. This cyanosis increased and the patient died on that day.

This appeared to me to have been definitely a case of Anterio-Poliomyelitis, death being due to paralysis of the respiratory muscles.

I was not privileged to examine this patient as she died two days before I visited that district with Dr. Armstrong.

The family consisted of:—

Father, aged 55 years.
Mother ,, 53 ,,
Female ,, 22 ,, Case F. Died (paralytic type).
Male ,, 15 ,,

CASE H. Male, aged 13 *months. Became ill* 1-10-26. *Died* 6-10-26

A further case occured on October 1st. He was a brother of Case E, and was probably infected by him at the commencement of the latter's illness. The child had had Whooping Cough and Bronchitis in July but had completely recovered.

On October 1st his mother noticed that although it was his habit to crawl vigorously, he was unable to do this. He did not cry and appeared to be in no pain of any sort, but he refused to take food.

On October 2nd the paralysis which had commenced the previous day increased until the child lay helpless and he was unable to move hand or foot. He was seen by Dr. Armstrong on both these dates who confirmed this opinion.

On October 3rd the condition remained more or less stationary, but on the 4th and 5th he became better and slight movements of the arms and legs were noticed.

He died, however, on October 6th, unexpectedly of heart failure. The diagnosis of this case was obscure until connected with other cases that had occurred.

This, very fortunately, was the last of the fatal cases.

The occupants of the house were as in Case E.

CASE I. Male, aged 13 *years* 6 *months. Taken ill* 6-10-26.
Recovered 28-10-26.

This boy complained of headache with pain in the back and neck on October 6th. He did not go to bed but remained away from school and on October 7th went to bed suffering from fever. His headache and pain continued.

On October 8th he was seen by Dr. Armstrong, when he had a temperature of 102.3°, headache, and a very dirty tongue. His temperature remained high and paralysis of the face developed on the 9th.

On the 13th I saw the boy with Dr. Armstrong. Since the 9th his general condition had very much improved and his temperature had gradually come down to normal. He had definite right-sided paralysis of the muscles supplied by the facial nerve. The tongue was not affected but he had difficulty in swallowing, in so much as he was unable to take anything but very small amounts, both of a fluid or solid nature, and he was unable to expel sputum properly, showing affection of the glosso-pharyngeal nerve centre. There was no other paralysis of any sort. His sensation and his reflexes were not affected.

On the 28th October, I examined this patient again. He looked very much better and had lost a certain anxious expression which he had previously. His colour had returned, his tongue was clean, and he had no difficulty in swallowing, but still had very marked facial paralysis. This had improved, however, and when he smiled, he got a crease in his face, but his lips did not move at all when he was asked to show his teeth.

The occupants of the house were as follows:—

Father, aged 54
Mother ,, 51
Female ,, 18
Female ,, 15
Male ,, 13 Case I. (paralytic type limited).

CASE J. Male, aged 14 *years* 11 *months. Taken ill* 7-10-26.
Recovered 13-10-26.

Case J came home from work on the 7th October with a headache and fever. On October 8th he was seen by Dr. Armstrong and he had a temperature of 101° with a headache.

On October the 9th and 10th the temperature came down slowly and on the 13th he was supposed to be quite well, and was out when I went to see him. However, on the 16th he felt unwell and vomited, and his temperature was found to be 99.8°. His temperature on the 18th rose to 100° and he became normal on the 21st. His tongue was not dirty.

This I think one must consider to be a case of Anterio-Poliomyelitis, and Dr. Armstrong agrees with me that it was so. I consider that the subsequent rise of temperature after apparent recovery helps to confirm this.

The occupants of the house were as follows:—

Father, aged 44 years.
Mother ,, 42 ,,
Male ,, 14 ,, 11 months. Case J (abortive type).
Female ,, 5½ ,, Case M (abortive type).

CASE K. Male, aged 12 *years* 4 *months. Ill* 9-10-26. *Recovered* 18-10-26.

Case K complained on the 9th October that he did not feel well, having a headache. He vomited and had some pain in the back of the neck.

On October 10th he appeared to be better and got up before dinner. His head did not ache so much but he vomited a little, had a slight temperature and a dirty tongue.

On October 11th he was not so well. His head was worse and the pain in the neck very marked; his temperature was 100° F., but his tongue was less furred.

On the day I saw him, 13th October, he had improved, but was still in bed; his tongue was not very dirty and his headache and pain much better.

I saw this boy again on October 28th. He had had no symptoms of any sort for ten days and he never had anything further than a headache and a pain in the back of the neck. I have no doubt that this was an abortive case of Poliomyelitis for the child next door contracted the disease in a perfectly obvious form, and I believe was infected by this boy.

The occupants of the house were as follows:—

Father, aged 49 years.
Mother ,, 59 ,,
Male ,, 30 ,,
Female ,, 23 ,,
Male ,, 14 ,,
Male ,, 12 ,, Case K. (abortive type).

CASE L. Male, aged 6. *Ill* 9-10-26.

On October 9th this child had a headache and was put to bed. He wandered a little at night. On October 11th he had a headache and a temperature of 101°.

On October 16th his temperature was down to normal and he appeared to be quite well.

I considered that as this boy lived in the middle of the other cases, it was necessary to regard him as an abortive case and advised the doctor to notify him.

CASE M. Female, aged 5½ *years. Taken ill* 12-10-26. *Recovered.*

A small sister of Case J on October 12th had a slight temperature with a cough and on the 13th still had a cough and a little temperature, and headache. It is possible that this was an abortive case and I have included it as such because she was in close contact with her brother.

The occupants of the house were the same as in Case J.

CASE N. Male, aged 12 *years* 10 *months. Taken ill* 13-10-26. *Recovered* 19-10-26.

On October 13th Case N complained of not feeling well and on the 14th had pains in the head, back of neck and both arms; he also vomited and had pain in his stomach. Dr. Armstrong was called in on October 15th, when his temperature was up between 100° and 101°; the sickness had stopped and the pain was better. On October 18th there was a rise in temperature to 99.2°, this was down the next day and the boy has been perfectly well since.

This I think was quite clearly an abortive case.

The occupants of the house were:—

Father, aged 56 years.
Mother ,, 45 ,,
Male ,, 12 ,, 10 months. Case N (abortive case).

CASE O. Male, aged 7 *years. Taken ill* 19-10-26. *Still under treatment in Hospital.*

This child lived in a semi-detached cottage next door to Case K. He was feverish, complained of headache, was drowsy and particularly complained of pain in the back. The temperature on the 21st was found to be 100.8° in the axilla.

On the 22nd I saw the child when he had pain in the back and head. There was some head retraction, the tongue was not clean but was not very dirty; there was a slight Kernig; knee jerks could not be elicited; planta reflexes extensor ~~both knees~~. The child very much resented examination of any sort or movement of his limbs, and was obviously ill. Hexamine 4 grains four-hourly was given.

On the 28th October the child still had pain in the back and in the head. Head retraction was still present and slight Kernig plus. There was general paralysis of both arms, but this was particularly marked in the upper arm. There was some grip in both hands but this was very slight. There was possibly some paralysis of the leg but this was difficult to ascertain. Knee jerks were minus; planta and abdominal reflexes were normal. The child was still ill and said to be sleeping badly.

On November 3rd the child was very much better; eating well, while previously he had taken practically nothing. There was no head retraction or Kernig; there was still some paralysis in the arms and probably the back as he was unable to sit up, but this was difficult to ascertain. He was sleeping badly then, but had no pain in the head or the back. Knee jerks were present, but at that time not very marked.

The occupants of the house were:—

Father,	aged	44 years.	
Mother	,,	47 ,,	
Male	,,	18 ,,	
Male	,,	13 ,,	
——	,,	11 ,,	
Male	,,	7 ,, 10 months.	Case O (paralytic type, extensive).
Female	,,	3 ,,	

TABLE VII.

INFECTIOUS DISEASES.

Attack Rate per 1,000 *living.*

	Administrative County.	England and Wales.
Small-pox	—	0.26
Scarlet Fever	1.8	2.10
Diphtheria	0.48	1.31
Enteric Fever	0.17	0.07
Puerperal Fever	0.09	0.07
,, Pyrexia	0.04	0.19
Erysipelas	0.30	0.38

Isolation Hospital Accommodation.

I went into the matter of Isolation Accommodation in my Report for last year, when I gave a number of particulars concerning each Hospital in the District. The details will be found in the Report for 1925. I there pointed out the advantages that the Authorities with small and inefficient Hospitals would obtain by using the large Isolation Hospitals.

The position has not altered materially, and I think that until the ideal arrangement can be achieved, that is, the transformation of the County Council into a controlling body for Isolation Hospital purposes, it is the best method that can be followed, having regard to the present circumstances.

Smallpox.

No case of Smallpox occurred in the County. The disease is becoming very prevalent, and that no person suffering from it has brought the complaint into this area, where there is a large proportion of the population unprotected by vaccination and ready to entertain this unwelcome guest, is the only reason that an outbreak has not occurred.

Tuberculosis.

In my Survey Report for 1925 I gave very full particulars of the County organisation of this Service, and as no change has occurred during the past twelve months, I do not propose to refer to it.

The most satisfactory feature perhaps of the statistics of the year is the dramatic drop in the Death Rate for Tuberculosis.

A glance at the statistics of persons certified as having died of Tuberculosis shows the smallest figure recorded—144, which is 70 less than in 1925. This appears to be truly remarkable, but sudden falls such as this must not create too sanguine an outlook, and it is necessary to avoid jumping to the conclusion that the incidence of Tuberculosis is decreasing rapidly in the County.

As in my last Report I defended the number of deaths in 1925, which was larger than the two previous years, so must I now avoid false deductions for 1926 due to unwarranted optimism.

The number of cases in East Suffolk taken year by year are too small to be of scientific value. It is quite reasonable to suppose that a large number of incurable cases dying during a particular year will adversely affect the statistics for that year; consequent upon this the statistics for the following year should show a lighter mortality. I think it highly probable that 1926 may be called from this point of view a lucky year, and that a large number of deaths were crowded into 1925, so that 1926 showed this extremely low figure.

I anticipate a definite increase in 1927, because it is probable that the large number of incurable cases that normally would have died in 1926 have lived through that year and will increase the mortality figure for 1927.

This condition of things I believe contributes very largely to the fluctuations that occur from year to year. If, however, the average number of deaths during the past five years be compared with the average number for the previous five years, the average figure for the years 1922—1926 inclusive, is 197, while for the period of years covering 1917—1921, the average number of deaths is 225. A comparison of these two figures is a reliable criterion. The only criticism I have to make is that 1918 is included, and that year showed a very heavy death rate due to the accumulated effects of underfeeding of the home population that existed throughout the four years of war.

I believe that the number of persons who are stated to have died from Pulmonary Tuberculosis is always greater than is actually the case. The diagnosis of an advanced case of Phthisis is an extremely easy matter and therefore all these deaths are recorded correctly. Obscure chest cases, however, are often I believe signed up as dying of Pulmonary Tuberculosis, when the death has been caused by malignant disease and other conditions.

The Tuberculosis death rate of a rural area, especially one adjacent to the sea, is apt to be increased by urban immigrants suffering from Tuberculosis who change their residence for the benefit of their health. When these persons die, as they often do, because their permanent residence is in this County, East Suffolk becomes saddled with deaths from Tuberculosis which ethically belong elsewhere.

It is a satisfactory feature of each Report that notification becomes more general, and that only 18 cases registered as dying of Tuberculosis were unknown to this Department this year.

The number of notifications in the County has fallen from 355 in 1925 to 257 in 1926.

563 examinations of sputum were made compared with 406 last year.

The examination of contacts has continued this year but is still disappointing. I reported about this at length in my Reports for the last two years. Two definite cases were found where no symptoms were complained of, though personally, I believe these symptoms had existed but were probably concealed. One was discovered by the School Medical Officer and the other by the Tuberculosis Officer. It is very rarely that adult contacts are willing to be examined, but parents have no hesitation in presenting children for examination to the Tuberculosis Officer, and as they have already been examined by the School Medical Officer the work becomes duplicated. The number of School contacts examined this year has been small, the reason being that owing to pressure of work only the contacts of new cases were dealt with. In 1927 however, I hope that all the children on the Contact List will be examined, and I propose that this shall be done annually.

During the year the County Council was able to provide treatment for all pulmonary cases without the institution of a Waiting List, and in addition accepted liability for all definite cases of Non-Pulmonary Tuberculosis which were treated in the Voluntary Hospitals. Unfortunately the financial year differs from the calendar year with which this Report deals, and therefore the expense of treatment cannot be compared with the amount of treatment undertaken.

The financial year has been heavier as regards the payment for treatment of Tuberculosis than any such period for many years, and the reason for this is seen when the figures for the treatment of patients in Hospital are examined.

	1924-25.	1925-26.	1926-27.
Pulmonary	£3973 0 0	£4035	£3968
Non-Pulmonary	£2147 16 0	£1526	£2267
Totals	£6120 16 0	£5561	£6235

The variation in the payment for Pulmonary Tuberculosis treatment is slight when compared with that for the treatment of Non-Pulmonary Tuberculosis, which has gone up from 1925-26 to 1926-27 by nearly £800, or more than 50%.

The rationing for next year has affected the estimate for the treatment of Tuberculosis very considerably, and only £5742 is allotted for this service this year. If the requirements for treatment this coming year approximate to those of last, it will be necessary to curtail the activities of the Council in this direction, and any such limitation must affect both the treatment of Pulmonary and Non-Pulmonary Tuberculosis.

The Pulmonary cases if necessary, must be placed on the Waiting List for Institutional Treatment, so that too many cases will not be treated at the same time, while it may be necessary for the County Council to refuse to accept liability for a certain number of the cases admitted into the Voluntary Hospitals through the agencies of persons other than their own Officers. This, of course, as I have pointed out before, is quite within the right of the County Council.

I have heard it stated that the treatment of Pulmonary Tuberculosis is more or less waste of money, while the treatment of Non-Pulmonary Tuberculosis is followed by success, the patient being cured and then enabled to follow his normal employment, and that such expenditure is a profitable undertaking. I believe that treatment for both conditions is equally necessary. Firstly, far more important than the cure of any disease is its prevention. Sanatorium Treatment is essentially an education in the methods of life and conduct which when carried out by a patient prevents as far as possible others contracting the disease when the patient returns to his home. The patient suffering from Pulmonary Tuberculosis often has sputum containing tubercle bacilli, and hence may pass on his disease to others. Therefore, it is essential that this patient be taught about his condition and shown the ways and means of preventing infection of others. The Sanatorium is the School of the patient with Phthisis, and I believe that money spent in such education is well laid out.

There is the question of the possibility of arresting the disease while in the Institution. I admit that this cannot be done as a rule, because the time required for such a condition to arrive would be at least two years, and the average stay of Pulmonary cases in the

Sanatorium is possibly six months. Therefore, while Sanatorium Treatment does not cure the patient, it gives him a start towards this condition and teaches him the methods by which his cure may be reached. Unfortunately, we are unable to put the patient in such a position that he is able to follow out these methods.

I believe that the Physician could take a leaf out of the Surgeon's book. The cure of a case of Tuberculous Spine spreads over years and the patient may be in a recumbent position for two years or more. I believe that if cases of Phthisis were treated with the same extreme care the number of recoveries would be much increased. But while we spend a certain amount upon the education and the partial treatment of the phthisical, for economic reasons because of the large number of patients, we cannot complete the treatment. Finally, treatment in Sanatorium is of the greatest use in advanced cases. It is when a patient is in the last stage of the disease that the greatest possibility of the infection of others occurs, and to be able to remove such an one to an Institution is of the utmost value in prevention. Therefore, I cannot accept the version that the money used upon the treatment of Pulmonary Tuberculosis is ill-spent. I wish that more could be put aside for the purpose.

It is probable that about three-quarters of the cases of Surgical Tuberculosis are due to the human bacillus, and that one-quarter are caused by the bovine bacillus ingested in milk. The major portion of those suffering from the disease obtain their infection from Pulmonary cases, and if infection from open cases of Pulmonary disease could be eliminated, the incidence of Surgical Tuberculosis would decrease by 75 per cent.

Most of the cases treated come under the heading of Adenitis (or glandular infection) in children, and as a rule these cases are of a benign nature, and though operation in Hospital gives the best result, nevertheless most of these cases would recover under treatment at home under the local Practitioner. Adenitis in adults I consider has a different prognosis and is often very intractable. Other Non-Pulmonary conditions which as a rule tend to become cured do not always respond to treatment as readily as one imagines and indeed if tubercle bacilli attack the spinal column treatment over a very long period is required, and often leaves a much deformed individual with a poor expectation of life. These cases are few and in spite of the long period of treatment required it can be carried out.

I personally believe that the failure of treatment of Pulmonary Tuberculosis is inclined to be exaggerated and the value of such treatment from an educational point of view under-estimated, and on the other hand the success of the treatment of Surgical Tuberculosis is not always so complete as it is imagined to be by the layman.

TABLE VIII.

TUBERCULOSIS.

New Cases and Mortality during 1926.

Age Periods.	New Cases.*				Deaths.			
	Pulmonary.		Non-Pulmonary		Pulmonary.		Non-Pulmonary	
	M.	F.	M.	F.	M.	F.	M.	F.
0	—	—	1	1	—	—	1	—
1	2	—	12	3	1	—	3	1
5	2	6	16	15	—	—	2	1
10	5	7	11	5	2	3	1	—
15	11	18	12	6	8	10	1	1
20	5	18	4	3	4	5	—	—
25	18	13	6	—	16	10	2	2
35	14	10	5	4	12	12	1	—
45	11	6	2	4	8	5	2	—
55	6	5	—	—	7	2	—	—
65	3	3	—	—	2	1	—	—
Totals	77	86	69	41	60	48	13	5

*Primary notifications and any other new cases.

The figures for the deaths for Tuberculosis do not include all the deaths of persons notified to the Registrar-General as dying from the disease in the Administrative County during the year. The figures only include those known to this Department. It is impossible to place the Registrar-General's death figure in these columns, because he divides the deaths from Tuberculosis into age groups, which are not comparable with the age periods given in this Table.

The Registrar-General's figures are set out in the following age groups:—

TABLE IX.

Age Groups.	Pulmonary.		Non-Pulmonary.	
	M.	F.	M.	F.
0	—	—	2	—
1	—	—	1	—
2	—	—	2	2
5	2	2	3	1
15	12	18	2	1
25	30	23	2	3
45	17	9	2	3
65	1	1	2	2
75 and upwards ...	—	—	1	—
All Ages	62	53	17	12

TABLE X.

Cases Notified as Suffering from Tuberculosis.

Year.	Primary notifications by Medical Practitioners.	Primary notifications by School Medical Officers.
1919	190	—
1920	232	6
1921	280	13
1922	245	13
1923	290	46
1924	277	16
1925	355	16
1926	257	12

TABLE XI.

Cases Certified as having Died of Tuberculosis.

Figures furnished by the Registrar-General:—

Year.	1919	1920	1921	1922	1923	1924	1925	1926
Pulmonary ...	182	145	144	171	155	163	178	115
Surgical ...	51	43	45	53	39	44	36	29
Total ...	233	188	189	224	194	207	214	144

TABLE XII.

Notified Cases Dying of Tuberculosis.

Year.	1919	1920	1921	1922	1923	1924	1925	1926
Pulmonary ...	—	—	—	—	100	139	161	108
Surgical ...	—	—	—	—	12	22	23	18
Total ...	—	—	—	—	112	161	184	126

TABLE XIII.

Tuberculosis.

Deaths.

Figures furnished by the Registrar General.

Districts.	Number of Cases Dying.									
	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926
Urban ...	99	126	114	78	80	101	92	88	97	68
Rural ...	133	156	119	110	109	123	102	119	117	76
Administrative County	232	282	233	188	189	224	194	207	214	144

TABLE XIV.

Death Rates.

Tuberculosis. All Forms.

	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926
Administrative County	1.31	1.59	1.21	.93	.92	1.07	.93	.98	1.02	.69
England and Wales ...	1.6	1.6	1.25	1.13	1.12	1.12	1.06	1.05	1.03	—

TABLE XV.

Death Rates. 1926.

Tuberculosis. All Forms.

Urban including Lowestoft.	Lowestoft.	Urban excluding Lowestoft.	Rural.	Administrative County.
.75	.74	.62	.64	.69

TABLE XVI.
DEATH RATES.
Pulmonary Tuberculosis.

Year.	Urban including Lowestoft.	Lowestoft.	Urban excluding Lowestoft.	Rural.	Administrative County.	England and Wales.
1917	1.08	1.01	1.16	.99	1.03	1.23
1918	1.31	1.38	1.24	1.20	1.25	1.32
1919	1.10	1.04	1.15	.83	.95	.98
1920	.66	.83	.48	.77	.72	.87
1921	.69	.66	.73	.70	.70	.88
1922	.84	.80	.86	.81	.82	.89
1923	.85	1.08	.62	.67	.74	.84
1924	.71	.87	.54	.82	.77	.84
1925	.93	.76	1.10	.79	.85	.83
1926	.62	.56	.68	.50	.55	—

TABLE XVII.
DEATH RATES.
Surgical Tuberculosis.

Year.	Urban including Lowestoft.	Lowestoft.	Urban excluding Lowestoft.	Rural.	Administrative County.	England and Wales.
1917	.29	.27	.32	.23	.28	.40
1918	.42	.41	.44	.29	.34	.37
1919	.27	.15	.41	.26	.26	.28
1920	.24	.30	.18	.19	.21	.26
1921	.22	.23	.21	.22	.22	.24
1922	.30	.37	.34	.22	.25	.23
1923	.18	.20	.16	.19	.19	.23
1924	.27	.28	.25	.17	.21	.21
1925	.14	.15	.14	.19	.17	.21
1926	.13	.17	.09	.14	.14	—

TABLE XVIII
Deaths of Notified Cases of Tuberculosis.

Period between Notification and Death.	Old Cases.		New Cases.		Total
	Males	Females	Males	Females	
Notified after death	—	—	1	4	5
Within 1 week after notification ...	—	—	14	4	18
Died from 1 week to 1 month ...	—	—	7	3	10
,, ,, 1 month to 3 months ...	2	1	5	6	14
,, ,, 3 months to 6 months...	1	1	1	4	7
,, ,, 6 ,, ,, 1 year ...	8	8	2	6	24
,, ,, 1 year to 2 years ...	16	10	—	—	26
,, ,, 2 years to 5 years ...	13	4	—	—	17
,, over 5 years	3	2	—	—	5
Total	43	26	30	27	126
	69		57		

TABLE XIX.

Source of Infection.

	Old Cases.	New Cases.	Total.
Probably due to direct personal house infection	47	13	60
Known family history	187	65	252

TABLE XX.

Examinations by Tuberculosis Officers.

Examinations.	Examinations made by		Total.
	Dr. Wood-White.	Dr. Crossfield.	
At Dispensaries	38	472	510
At homes of patients ...	906	437	1343
Consultations with Doctors at homes of patients ...	51	3	54
Consultations otherwise ...	33	30	63
Total	1028	942	1970

TABLE XXI.

Working Capacity of Cases on Register on 31st December, 1926.

Capacity for Work.	Pulmonary Tuberculosis.	Surgical Tuberculosis.	Total.
Full-time	136	122	258
Part-time	82	22	104
Getting about	126	48	174
Confined to bed	39	21	60
Total	383	213	596

TABLE XXII.

Cases treated as In-patients in Institutions.

Pulmonary Tuberculosis.

Name of Institution.	Admitted.				Discharged.				Remaining under treatment on 31st December, 1926.			
	M.	F.	C.	Total.	M.	F.	C.	Total.	M.	F.	C.	Total.
Normanston Hospital ...	48	—	1	49	49	—	—	49	13	—	1	14
Ipswich Sanatorium	15	34	8	57	13	31	11	55	6	13	5	24
Ipswich Isolation Hospital ...	1	3	—	4	1	6	—	7	—	1	—	1
Brompton Hospital	1	1	—	2	—	—	—	—	1	1	—	2
East Anglian Sanatorium ...	—	—	2	2	—	—	2	2	—	—	2	2
Maltings Farm Sanatorium...	—	2	—	2	—	4	—	4	—	—	—	—
Papworth Colony	1	—	—	1	—	—	—	—	2	—	—	2
East Suffolk & Ipswich Hospital	—	1	—	1	1	1	—	2	—	—	—	—
Lowestoft & North Suffolk Hospital	—	—	—	—	1	—	—	1	—	—	—	—
Total	66	41	11	118	65	42	13	120	22	15	8	45

Number of Patients who received treatment in 1926	...	165
,, ,, ,, ,, 1925	...	183
,, ,, ,, ,, 1924	...	200
,, ,, ,, ,, 1923	...	185
,, ,, ,, ,, 1922	...	185
,, ,, ,, ,, 1921	...	196

Condition of Patients Discharged from Institutions:—

Quiescent	1
Improved	66
No material improvement	17
Died in Institution ...	13

Observation Cases—

Improved	23

TABLE XXIII.

Surgical Tuberculosis.

Name of Institution.	Admitted.				Discharged.				Remaining under treatment on 31st December, 1926.			
	M.	F.	C.	Total.	M.	F.	C.	Total.	M.	F.	C.	Total.
East Suffolk and Ipswich Hospital	17	6	22	45	18	8	18	44	2	—	10	12
Lowestoft and North Suffolk Hospital	4	2	8	14	4	2	7	13	—	—	1	1
Sevenoaks Hospital	—	—	—	—	—	—	—	—	—	1	—	1
Beccles Hospital	—	—	1	1	—	—	—	—	—	—	1	1
Easrt Anglian Sanatorium ...	—	—	—	—	—	—	1	1	—	—	—	—
Felixstowe Cottage Hospital...	—	—	—	—	—	—	1	1	—	—	—	—
Heatherwood Hospital ...	—	1	—	1	—	—	—	—	—	1	—	1
London Hospital	1	—	—	1	1	—	—	1	—	—	—	—
Lord Mayor Treloar's Hospital	—	—	2	2	—	—	1	1	—	—	1	1
Normanston Hospital ...	2	—	2	4	2	—	1	3	—	—	1	1
Ipswich Isolation Hospital ...	—	1	1	2	—	1	1	2	—	—	—	—
Ipswich Sanatorium	—	—	1	1	—	—	—	—	—	—	1	1
Total	24	10	37	71	25	11	30	66	2	2	15	19

Number of Patients who received treatment in 1926	...	85
,, ,, ,, ,, 1925	...	67
,, ,, ,, ,, 1924	...	63
,, ,, ,, ,, 1923	...	77
,, ,, ,, ,, 1922	...	51
,, ,, ,, ,, 1921	...	73

Condition of Patients on Discharge from Institutions:—

Quiescent or Arrested ...	2
Improved	55
No material improvement	6
Died in Institutions ...	3

Number of Cases Refusing Institutional Treatment.

Old Cases.	New Cases.	Total.
13	16	29

TABLE XXIV.

Cases removed from Register during the Year.

Reason for Removal.	Old Cases.	New Cases.	Total.
Death	69	57	126
Cured	22	—	22
Refused Examination	13	6	19
Removed from Area	31	27	58
Not Tuberculosis	131	147	278
Doctors' Private Patients	1	6	7
Admitted Infirmary or Children's Homes (Poor Law) ...	2	7	9
Asylum Inmates	—	5	5
Total.	269	255	524

TABLE XXV.

Cases Referred by School Medical Officers during the Year.

Diagnosed as Pulmonary Tuberculosis	3
Diagnosed as Surgical Tuberculosis	6
Remaining under observation	8
Diagnosed as Non-Tubercular	11
Not yet examined	1
	29

Cases Referred to School Medical Officers for observation.

Old Cases.	New Cases.	Total.
5	12	17

TABLE XXVI.

Return showing the work of the Dispensaries during the year 1926.

DIAGNOSIS.	PULMONARY.				NON-PULMONARY.				TOTAL.			
	Adults.		Children.		Adults.		Children		Adults		Children.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
A.—NEW CASES examined during the year (excluding contacts):—												
(*a*) Definitely tuberculous	42	45	2	4	19	13	20	12	61	58	22	16
(*b*) Doubtfully tuberculous	19	26	10	9	4	1	9	11	23	27	19	20
(*c*) Non-tuberculous	4	10	10	4	2	2	8	3	6	12	18	7
B.—CONTACTS examined during the year:—												
(*a*) Definitely tuberculous	—	1	—	3	—	—	—	—	—	1	—	3
(*b*) Doubtfully tuberculous	1	1	5	5	—	—	—	1	1	1	5	6
(*c*) Non-tuberculous	3	6	12	25	2	—	1	3	5	6	13	28
C.—CASES written off the Dispensary Register as												
(*a*) Cured	6	6	—	—	2	2	4	2	8	8	4	2
(*b*) Diagnosis not confirmed or non-tuberculous (including cancellation of cases notified in error) ...	45	48	66	62	9	3	28	17	54	51	94	79
D.—NUMBER OF PERSONS on Dispensary Register on December 31st:—												
(*a*) Diagnosis completed...	204	161	4	15	63	39	68	47	267	200	72	64
(*b*) Diagnosis not completed	26	33	21	25	3	3	20	18	29	36	41	43

1. Number of persons on Dispensary Register on January 1st	807
2. Number of patients transferred from other areas and of "lost sight of" cases returned... ...	46
3. Number of patients transferred to other areas and cases "lost sight of"	64
4. Died during the year ...	97
5. Number of observation cases under A (*b*) and B (*b*) above in which period of observation exceeded 2 months ...	66
6. Number of attendances at the Dispensary (including Contacts) ...	510
7. Number of attendances of non-pulmonary cases at Orthopædic Out-stations for treatment or supervision	Nil.
8. Number of attendances, at General Hospitals or other Institutions approved for the purpose, of patients for	
(*a*) "Light" treatment...	Nil.
(*b*) Other special forms of treatment	,,
9. Number of patients to whom Dental Treatment was given, at or in connection with the Dispensary ...	1
10. Number of consultations with medical practitioners:—	
(*a*) At Homes of Applicants	54
(*b*) Otherwise	63
11. Number of other visits by Tuberculosis Officers to Homes ...	1343
12. Number of visits by Nurses or Health Visitors to Homes for Dispensary purposes	3116
13. Number of	
(*a*) Specimens of sputum, &c., examined ...	563*
(*b*) X-ray examinations made ... ... in connection with dispensary work ...	6
14. Number of Insured Persons on Dispensary Register on the 31st December	306
15. Number of Insured Persons under Domiciliary Treatment on the 31st December ...	280
16. Number of reports received during the year in respect of Insured Persons:—	
(*a*) Form G.P. 17 ...	28
(*b*) Form G.P. 36 ...	359

*Positive 164. Negative 399.

TABLE XXVII.—(A) PULMONARY TUBERCULOSIS.

Annual Return showing in summary form the condition of all Patients whose case records are in the possession of the Dispensaries at the end of 1926, *arranged according to the years in which the Patients first came under Public Medical Treatment for Pulmonary Tuberculosis, and their classification as shown on pages* 81 *and* 82.

Condition at the time of the last record made during the year to which the Return relates.				Previous to 1926.					1926.				
					Class T.B. plus.					Class T.B. plus.			
				Class T.B. minus.	Group 1.	Group 2.	Group 3.	Total (Class T.B. plus).	Class T.B. minus.	Group 1.	Group 2.	Group 3.	Total (Class T.B. plus).
ALIVE.	Discharged as cured.	Adults.	M.	4	2	—	—	2	Nil.	Nil.	Nil.	Nil.	Nil.
			F.	5	1	—	—	1					
		Children.	M.	—	—	—	—	—					
			F.	—	—	—	—	—					
	Disease arrested.	Adults.	M.	26	18	4	—	22	—	—	—	—	—
			F.	15	6	1	—	7	—	—	—	—	—
		Children.	M.	2	—	—	—	—	—	—	—	—	—
			F.	4	—	—	—	—	—	—	—	—	—
	Disease not arrested.	Adults.	M.	27	13	60	16	89	5	7	20	1	28
			F.	51	16	25	7	48	15	4	13	2	19
		Children.	M.	—	—	—	—	—	2	—	—	—	—
			F.	2	—	1	2	3	6	—	—	—	—
Condition not ascertained during the year				8	2	3	—	5	—	—	—	—	—
Lost Sight of or otherwise removed from Dispensary Register ...				17	3	8	2	13	6	2	4	—	6
DEAD.		Adults.	M.	5	1	4	28	33	2	1	2	4	7
			F.	5	—	1	16	17	7	—	2	6	8
		Children.	M.	—	—	—	1	1	1	—	—	—	—
			F.	—	1	—	—	1	—	—	1	—	1
Totals				171	63	107	72	242	44	14	42	13	69

TABLE XXVII.—(B) NON-PULMONARY TUBERCULOSIS.

Annual Return showing in summary form the condition of all Patients whose case records are in the possession of the Dispensaries at the end of 1926, *arranged according to the years in which the Patients first came under Public Medical Treatment, and their classification as shown on pages* 81 *and* 82.

Condition at the time of the last record made during the year to which the Return relates.				Previous to 1926.					1926.				
				Bones and Joints.	Abdominal.	Other Organs.	Peripheral Glands.	Total.	Bones and Joints.	Abdominal.	Other Organs.	Peripheral Glands.	Total.
ALIVE.	Discharged as cured.	Adults.	M.	1	—	—	1	2	Nil.	Nil.	Nil.	Nil.	Nil.
			F.	1	—	1	—	2					
		Children.	M.	3	1	—	—	4					
			F.	1	—	—	1	2					
	Disease arrested.	Adults.	M.	5	6	3	3	17	—	—	—	—	—
			F.	5	—	2	2	9	—	—	—	—	—
		Children.	M.	9	4	2	10	25	—	—	—	1	1
			F.	4	3	1	6	14	—	—	—	2	2
	Disease not arrested	Adults.	M.	17	1	5	6	29	7	2	5	3	17
			F.	11	2	1	5	19	3	—	—	6	9
		Children.	M.	12	2	—	12	26	6	3	2	5	16
			F.	6	5	1	5	17	2	1	2	6	11
Transferred to Pulmonary				—	—	—	1	1	—	—	—	—	—
Condition not ascertained during the year				5	—	—	—	5	—	—	—	—	—
Lost sight of or otherwise removed from Dispensary Register ...				9	1	—	3	13	3	2	—	4	9
DEAD.		Adults.	M.	1	—	2	—	3	3	—	—	—	3
			F.	—	—	1	—	1	—	—	—	—	—
		Children.	M.	1	—	—	—	1	—	—	1	—	1
			F.	—	—	—	—	—	—	—	—	—	—
Totals				91	25	19	55	190	24	8	10	27	69

In order to understand the Tables the following definitions and suggestions of the Ministry of Health must be borne in mind:—

CLASSIFICATION.—Patients diagnosed as suffering from Pulmonary Tuberculosis are placed in the following categories:—

Class T.B. minus, *viz.*, cases in which tubercle bacilli have never been demonstrated in the sputum; and

Class T.B. plus, *viz.*, cases in which tubercle bacilli have at any time been found. It should be noted that a patient originally in Class T.B. minus must be transferred to Class T.B. plus at any stage in the course of treatment if and when tubercle bacilli are found; while, on the other hand, a patient who is once placed in Class T.B. plus can never revert to Class T.B. minus. Class T.B. plus is further sub-divided into three groups as follows:—

Group 1. Cases with slight constitutional disturbance, if any, *e.g.*, there should not be marked acceleration of pulse nor elevation of temperature except of very transient duration; gastro-intestinal disturbance or emanciation, if present, should not be excessive.

The obvious physical signs should be of very limited extent as follows:—Either present in one lobe only and in the case of an apical lesion of one upper lobe not extending below the second rib in front or not exceeding an equivalent area in any one lobe; or where these physical signs are present in more than one lobe they should be limited to the apices of the upper lobes and should not extend below the clavicle and the spine of the scapula.

No complication (tuberculous or other) of prognostic gravity should be present. A small area of dry pleurisy does not exclude a case from this group.

Group 3. Cases with profound systemic disturbance or constitutional deterioration, with marked impairment of function, either local or general, and with little or no prospect of recovery.

All cases with grave complications, whether tuberculous or not, are classified in this group, *e.g.*, diabetes, tuberculosis of larynx or intestine, etc.

Group 2. All cases which cannot be placed in Groups 1 and 3.

Patients suffering from Non-Pulmonary Tuberculosis are classified according to the site of the lesion as follows:—

(1) Tuberculosis of bones and joints.
(2) Abdominal tuberculosis (*i.e.*, tuberculosis of peritoneum, intestines or mesenteric glands).
(3) Tuberculosis of other organs.
(4) Tuberculosis of peripheral glands.

Patients suffering from multiple lesions are classified in one sub-group only, *viz.*, in that applicable to the case which stands highest in the table.

Observation Cases. Persons attending at, or in connection with, the Dispensaries, in whose cases the Tuberculosis Officer cannot, within a period of one month from his first examination of the case, come to a definite diagnosis after physical examination and the application of the necessary tests.

Quiescent. Cases which have no symptoms of tuberculosis and no signs of tuberculous disease except such as are compatible with a completely healed lesion, and in which sputum, if present, is free from tubercle bacilli.

Arrested. In pulmonary cases the term "arrested" is applied only to cases which have been "quiescent" for a period of at least two years.

In non-pulmonary cases the term "arrested" is used as soon as there is reason to believe that the disease is unlikely to recur.

Cured. No patient is deemed to be "cured" until in the case of pulmonary tuberculosis, five years, and in the case of non-pulmonary tuberculosis, three years, have elapsed without any symptoms of active disease (*i.e.*, arrest has been maintained for three years).

Diseases of Animals Acts (1894–1925)

Tuberculosis Order (1925)

The Tuberculosis Order of 1925, though not administered by the Public Health Department, aims at preventing the spread of Tuberculosis amongst cattle, and this, therefore, should affect the incidence of Non-Pulmonary Tuberculosis in human beings by diminishing the number of milk supplies which contain tubercle bacilli. It is therefore interesting to examine the figures that relate to the administration of the Order in this County.

I find that the number of cows slaughtered under the Order during the year for East and West Suffolk was only 95; 7 of these suffered from Tuberculosis of the udder; 2 were slaughtered because they were giving milk containing tubercle bacilli; 47 because of tuberculous emaciation; and 38 for other tuberculous conditions.

This includes all bovine animals, and more than half of the total were milch cows.

Under the Milk and Dairies Act, the County Council has the responsibility of the examination of herds of cows for the detection of Tuberculosis and the examination of cows must be made by Veterinary Officers.

The County Council considered that it was impossible at present to institute regular and wholesale inspections, and therefore decided that where the Sanitary Inspectors of Local Authorities considered an inspection was desirable, they would arrange for an inspection in these instances, and in addition request the Veterinary Inspector to inspect the whole herd when called in to see a bovine animal under the Tuberculosis Order.

I feel that the Tuberculosis Order cannot be called an unquestionable success, and that numbers of definitely Tubercular cattle are not brought to the notice of the Veterinary Surgeon.

TABLE XXVIII.

VENEREAL DISEASES.

Centre.	No. of Persons seen for the first time and found to be suffering from:—			Conditions other than Venereal.	Total.	Total No. of Attendances at the Out-patient Clinics of E. Suffolk Patients.	Aggregate No. of In-Patient days of E. Suffolk Patients.	No. of Doses of Salvarsan Substitutes given in:—	
	Syphilis.	Soft Chancre	Gonorrhoea.					Out-Patient Clinics.	In-Patient Depts.
Ipswich	20 (25)	2 (4)	15 (14)	15 (16)	52 (59)	761 (1045)	241 (280)	346 (365)	3 (12)
Norwich	13 (10)	— (—)	4 (10)	6 (4)	23 (24)	618 (439)	13 (17)	94 (105)	— (—)
Other Treatment Centres ...									
Royal London Ophthalmic	— (1)	— (—)	— (1)	— (—)	— (2)	— (10)	— (54)	— (—)	— (—)
Tynemouth	1 (—)	— (—)	— (—)	1 (—)	2 (—)	17 (—)	— (—)	4 (—)	— (—)
Totals	34 (36)	2 (4)	19 (25)	22 (20)	77 (85)	1396 (1494)	254 (351)	444 (470)	3 (12)

Figures in brackets relate to the Year 1925.

Venereal Diseases.

The treatment of Venereal Diseases in East Suffolk is carried out at Treatment Centres at East Suffolk and Ipswich Hospital for the southern part of the County, and at Norfolk and Norwich Hospital for the northern.

A small amount of money only was expended this year in propaganda for the prevention of Venereal Diseases, and this was spent in Lowestoft on handbills for distribution during Health Week.

A Venereal Disease Centre at Lowestoft appears to be as far away from materialisation as ever. Since the question was re-opened in 1923, the County Council has been attempting to come to an arrangement whereby a Centre will be established at the Lowestoft and North Suffolk Hospital. This would be ideal if it could be managed. It appeared at one time to be plain sailing. A plan was prepared for building an Out-patient Clinic and it was hoped that if by chance In-patient treatment was required, accommodation could be found at the Hospital for these cases. The only difficulty was the question of the Hospital Authorities being willing and able to raise sufficient capital to erect the building. The County Council, of course, could not do this, for this reason: 75 per cent. of the expenditure on Venereal Diseases is paid by the Treasury and 25 per cent. by the County Council. The Treasury, however, are only willing to meet current expenses and are not prepared to enter into capital expenditure. If, therefore, the County Council took the responsibility of building the Centre themselves, the whole of this amount would necessarily have to be provided from the rates, but if some other body, such as the Hospital, would finance the undertaking, the Ministry of Health would find annually 75 per cent. of the money that is required for paying the rent of such premises, interest upon the money expended and the re-payment of the capital expended over a series of years.

In this way the County Council and the Ministry of Health would pay for the building by the end of an arranged period of years, the County Council contributing only 25 per cent. of the money required. This, therefore, is the reason that the County Council is quite unable to erect this building out of capital expenditure.

After considerable negotiation about this the difficulty was settled and the Hospital Authorities were prepared to find the required capital. A further obstacle was then introduced, the Sub-Committee of the Hospital appointed to deal with the matter passed a resolution that they were unable to recommend the Management Committee to proceed any further in the matter of the provision of a Venereal Diseases Centre at Lowestoft Hospital, unless the County Council and the Ministry of Health were prepared to provide the necessary accommodation for In-patient treatment, as shown in a further plan; this consisted essentially of one two-bedded ward, three Staff bedrooms and a bathroom and lavatory, in addition to the Out-patient accommodation with which the County Council had already agreed.

This decision has entirely altered the whole position and has made the chance of a Centre at Lowestoft precarious. The reasons are as follows. In the first place the two-bedded ward would not be used for Venereal Disease treatment, but these two beds would replace the beds in the Hospital which would be used when necessary for this purpose. While this appears to be irregular, it does not seem to be unreasonable, and the Ministry of Health might agree to this arrangement.

The difficulty created is the demand for three Staff bedrooms. The staff required to run the Centre would not be more than a half-time Sister and whole-time male attendant. The male attendant should not be a member of the indoor staff and would be able to live in the town, and therefore the utmost that could be conceded I consider, in this direction, would be one staff bedroom.

The Sub-Committee, therefore, have somewhat abruptly levelled a pistol at the head of the County Council in the shape of a resolution which lays down specific conditions that in my opinion are unfair to the County Council and the Ministry of Health, and with which I could not, personally, recommend the County Council to comply, furthermore to which I believe the Ministry of Health would be unwilling to agree.

I hope that the Sub-Committee may be willing to reconsider this resolution which was passed before it was discussed with any representative of the County Council.

VII.

MATERNITY AND CHILD WELFARE.

Nursing Staff.

Inspector of Midwives and Superintendent Health Visitor.

Assistant Inspector of Midwives and Assistant Superintendent Health Visitor.

Health Visitors.

The approved staff for the year was 70, consisting of 4 full-time Health Visitors and 66 District Nurses giving part-time services as Health Visitors, Tuberculosis Visitors, and Maternity Nurses.

The following is a survey of visits paid by them :—

	1926.	1925.
First visits to infants under 1 year ...	2,630	2,721
Re-visits to infants under 1 year ...	6,709	6,297
Visits to expectant mothers	3,818	3,463
Visits to children (1 to 5 years)	27,999	21,479
	41,156	33,960

Scheme.

The Annual Report for 1925 explained in detail the scheme for this service as it is carried out in East Suffolk, and on that account I do not propose to enlarge upon the subject. I repeat, however, that the greater proportion of the County is covered by District Nursing Associations, and their nurses are the agents of the County Council for the purposes of Midwifery, Maternity Nursing, Health Visiting and Tuberculosis Visiting. For these services the District Nursing Associations are paid a grant by the County Council, and the nurses are inspected in respect of these services by Miss Chalmers, who is the Inspector of Midwives and Superintendent Health Visitor of the County.

These Nursing Associations have steadily increased in number since 1921 :—

1921	36
1922	43
1923	46
1924	49
1925	52
1926	57

The County Council expend, by making these grants, approximately £1900 per year, and in order to cover the whole County an additional sum of at least £1200 will be necessary. It appears that the extension of this movement will be slower in the future than it has been in the last five years. There are three reasons for this: Firstly, the inability of the County Council to provide the yearly increase of expenditure naturally required. The County Council have rationed the various departments, including that of Public Health, for the year 1927-28, insomuch as the rate to be levied for that year is not to exceed the rate levied for the previous year. If this rationing is to become routine, it must of necessity prevent any further extension of this scheme which the County Council has fathered up to the present time. Secondly, there is a distinct difficulty in obtaining nurses to staff the districts. It is almost impossible to obtain a nurse already trained as a Midwife, and therefore, it is necessary to train candidates. Sometimes it is not easy to obtain suitable women for a course of training. Thirdly, the period of time for training having been increased, it takes longer to obtain a Midwife after commencement of her training, and it costs more to train her.

I view with some apprehension the possibility that the formation of new District Associations may cease, and unless the County Council can continue to give the grants both to the new Associations and towards the training of Midwives, a curtailing of activities appears inevitable.

Nursing Associations cannot come into being unless a trained Midwife is available, and they require the County Council grant to enable their existence to continue.

Two-thirds of the County are at present covered in this way, and one-third is not in this happy position. The difference between these portions of the County is as follows:—

In the larger area the inhabitants have the following privileges: Firstly, for all illnesses other than infectious diseases they are in a position to acquire the services of the District Nurse. While this privilege is not provided by the County Council, it is made possible by the co-operation of that body and while General Nursing is not one of the health services that the County Council is responsible for in any way, it is one of the very greatest value, and I do not see at some future date, perhaps far ahead, how it can fail to be recognised as one of the Public Health services of the Country, and if this comes to pass, it will, no doubt be co-ordinated with the County services. Secondly, a Midwife is provided by the County Council, and acts as such, and any woman may obtain her services at a prescribed fee, she works as a Maternity nurse when a doctor undertakes the management of labour. In this way, the woman though in a remote country district, has no cause to fall back upon the ignorant handiwoman.

These three necessities, General Nursing, Midwifery, and Maternity Nursing, are the services which are at present denied to a third of the County. Health Visiting and Tuberculosis Visiting are carried out generally. In those areas provided with Nursing Associations, by the District nurses, and in those unprovided by means of whole-time Health Visitors who are Officers of the County Council.

I have always stated in my previous Reports and I repeat that "I hope that the time will come when General Nursing, Midwifery Nursing and Maternity Nursing are available throughout the whole County," but in view of the recent embargo laid upon increase of expenditure, which in the case of the Public Health services, I hope are only temporary, the time appears to be far distant when such a state of affairs can exist.

Infant Welfare Centres.

Six Infant Welfare Centres have been in commission during 1927. Five were in existence in 1925. A new Centre has been started in Bungay during the year.

Aldeburgh.

The Medical Officer in Charge, Dr. C. D. Somers (attends fortnightly.)

Commenced in 1919, and was started in what appears to be a rather irregular manner. The responsibility for the Centre was placed in the hands of the Maternity and Child Welfare Sub-Committee of the Borough; that is to say, the Council of the Borough administer the Centre; this being so, they should be an Authority under the Maternity and Child Welfare Act for the purpose of administering the Centre, and should, in addition, undertake the financing of the venture, and the County Council should remit from the general rate levied throughout the County for Infant Welfare Centres the proportion that Aldeburgh has paid in this respect. This however, is not the case; the County Council finance the Centre and no remission of rate is made. If any re-organisation is contemplated in the future I should advise the Council to place the Centre on a proper footing, and either administer the Centre with the help of voluntary workers, or, if the County and Borough think fit, allow the Borough to be an Authority of the Act for the provision of an Infant Welfare Centre and be responsible for their own financial arrangements.

The attendances at this Centre continue to be, to say the least of it, extremely disappointing. A fact well recognised by the Medical Officer and the Council, the Centre was open 38 times, the attendance only reaching double figures on 10 occasions. The reason for the small number of openings was owing to the Committee early in the year deciding that the reason for the poor attendances was too frequent opening. Whereupon they decided to limit the openings to two every month. The old regime was returned to at my request. The average number of children present at each opening was 7.

Beccles.

The Medical Officer in Charge, Dr. C. R. Smith (attends weekly).

This Centre has had another highly successful year. The attendances are uniformly good, and show little variation. I consider that it is performing its function most usefully and satisfactorily.

Bungay.

The Medical Officer in Charge, Dr. S. F. Reynolds (attends fortnightly).

This Centre opened in May 1926. It was inaugurated by a "Baby Week," which was arranged through the District Nursing Association, and was most admirably managed by Miss Brittain, the District Nurse. She, I believe, was the driving force of the venture, and she carried it through with remarkable success, with the result that Bungay entered for the "Astor Challenge Shield," and was awarded a Certificate of Merit, and was placed amongst the first ten towns in England. This appears to me to be a remarkable personal achievement for Nurse Brittain and the Nursing Association, whose officer she is.

The Centre starting with such an impetus and under such happy conditions, has been, as I expected it would be, a great success. The attendances for so small a town are excellent; on one occasion reaching its highest—55, and on this a day when no extra attraction was provided in the shape of a party.

During this year Dr. Reynolds has been able to attend twice a month only, but I hope some time in 1927 arrangements will be made for the attendance of a doctor each week.

Felixstowe.

Medical Officer in Charge, Dr. S. Bridgeford (attends weekly).

The attendances at this Centre have improved gradually towards the end of the year, and are now extremely good. A certain number of expectant mothers were seen in this Centre and provision was made for this service. The Centre is thriving.

Halesworth.

Medical Officer in Charge, Dr. S. F. Reynolds (attends three times in four weeks).

This Centre, which was opened in November 1923, has never looked back. The attendances have been so large that it was found necessary to hold the meetings at the old school premises, as the rooms in the Town Hall were inadequate, and the conditions under which the doctor worked were impossible. The new building is more satisfactory though not so central. Unfortunately it was necessary to deprive the Centre of the services of Dr. Reynolds upon one day during the month on account of the new Centre which was opened at Bungay. I hope in 1927 that the Centre will be attended weekly by a Medical Officer.

Leiston.

Medical Officer in Charge, Dr. A. G. Atkinson (attends weekly).

The attendances at this Centre are not satisfactory when one takes into consideration the enthusiasm and ability of the Committee, the Medical Officer, Nursing Staff and the size of the town, and the fact that it is largely composed of working class population. The mothers of Leiston do not sufficiently appreciate the assistance that an Infant Welfare Centre can be; the efficiency of their own Centre cannot be challenged.

TABLE XXIX.

Maternity Centres.	Population.	Number of Openings.	Number of Attendances.		Average Attendances of Children per Session.	Number of Consultations With Medical Officer.		Average Number of Consultations per Child per Session attended by Medical Officer.
			Expectant mothers.	Children.		Expectant mothers.	Children.	
Aldeburgh	2467	38	—	309	8	—	68	3
Beccles	6960	52	65	2445	47	22	834	19
Bungay	3152	35	46	993	28	2	111	11
Felixstowe	10730	50	86	1367	27	19	288	7
Halesworth	2015	48	38	1798	37	—	253	10
Leiston	4662	50	—	1035	20	—	362	8
	29986	273	235	7947	—	43	1916	—

TABLE XXX.

Opthalmia Neonatorum.

1926.

	Cases Notified.	Cases Treated.		Vision Un-impaired.	Vision Impaired.	Total Blindness.	Deaths.
		At Home.	In Hospital.				
East Suffolk ...	14	12	2	13	1	—	—
Borough of Lowestoft	16	15	1	16	—	—	*1
	30	27	3	29	1	—	1

* Premature Child.

The County Council grant free supplies of Colossol Argentum to all Midwives practising in the area. This is a preparation of silver which is a preventative of eye infection and is used as a routine practice.

Puerperal Fever and Pyrexia.

	Cases Notified.	Cases Treated.		Result.	
		At Home.	In Hospital.	Cured.	Died.
East Suffolk ...	16	9	7	13	2
Borough of Lowestoft ...	11	6	5	10	1
	27	15	12	23	3

Notification of Births Acts 1907 and 1915.

During the 12 months 2352 births including still-births were notified, but it should be observed that births which occurred in the Municipal Borough of Lowestoft are excluded.

	1926	1925
Notified by Medical Practitioners	1,568	1,769
,, ,, Midwives	772	764
,, ,, Parents	12	18
,, ,, Women acting in Emergency midwifery	—	—
Totals	2352	2551
Un-notified but obtained from Registrars' Returns	267	240
Totals	2,619	2,791

Birth figures supplied by the Registrar General for the Administrative County excluding Lowestoft	2,649	2,761
Birth figures supplied by the Registrar General for the Municipal Borough of Lowestoft	781	785

Still-Births.

	1926	1925
Notified by Medical Practitioners	58	70
Notified by Midwives	15	14
Totals	73	84

TABLE XXXI.

Maternity Mortality.

Year.	Number of Deaths.		Rate per 1000 Births.	
	Puerperal Septicaemia.	Other Accidents due to Child Birth.	Administrative County.	England and Wales.
1922	5	10	3.57	3.58
1923	1	10	2.73	3.60
1924	5	8	3.42	3.70
1925	3	6	2.54	—
1926	2	10	3.50	—

In the above Table I give the figures concerning the number of women who have died during the last five years on account of child-birth, and have divided these into two headings, the first Puerperal Septicaemia, and the second "Other Accidents due to Childbirth."

In addition I have given the mortality rate which indicates the number of deaths amongst mothers for every thousand births. This rate has maintained a level for many years and has been the cause of much thought and perturbation upon the part of those concerned with and interested in rates of mortality.

The numbers of births in Suffolk are small, but the figures for maternal mortality have the appearance of uniformity. I do not anticipate, certainly in the near future, that this rate will decline. The reasons are manifold. While parturition is a natural process, civilisation has reached a point where it is not uncommon for abnormalities to occur, and where death would certainly supervene if it were not for the timely help of medical aid. The practitioner, particularly in rural areas, far removed from access to Hospitals, may have to tackle emergencies of many and diverse characters requiring immediate action and calling forth qualities of self-reliance, courage and judgment. There is in no branch of Medicine or Surgery in which work has to be carried out under such great difficulties. The surgeon operates upon his patient in a Nursing Home under sterile conditions; he has an anaesthetist, a skilled assistant, and usually two nurses, and this perhaps for quite a simple operation, while the general practitioner in the country may have to deal with the most difficult and complicated case of labour with insufficient light and the assistance only of a midwife. Under such circumstances the chances of success must be doubtful and the possibility of a sepsis extreme, and to me it is surprising that the maternal mortality rate is as low as it is. I do not believe that any alteration will be made in the mortality rate until by means of Ante-natal examination and diagnosis a certain number of these complicated cases will be anticipated before labour and will be admitted into a Hospital so that when the emergency occurs the woman will be in the very best possible position to undergo the ordeal.

TABLE XXXII.

Midwives.

Year.	No. of Births.	Mid-wives' Cases.	Percentage of births attended by Mid-wives.	Calls for Medical Aid.	Percentage of Calls.	Trained Mid-wives.	Untrained Mid-wives.	Total Mid-wives.	Amounts paid to Doctors for Medical Help.
									£ s. d.
1913	4680	981	21	37	3.8	42	31	73	—
1922	4205	1173	28	147	13.0	80	11	91	167 17 0
1923	4033	1055	26	172	16.0	97	9	106	214 12 6
1924	3803	1113	29	210	19.0	103	3	106	300 12 6
1925	3546	1160	32	248	21.0	106	2	108	338 15 6
1926	3430	1100	32	275	25.0	118	1	119	363 11 2

An investigation of the work carried out by the midwives in the County for the last five years is to say the least of it disturbing. I propose to take for comparative purposes the figures which I have for 1913, which were included in the Annual Report of the Local Government Board in 1914. I must admit that an examination of the above table gives both disappointing and unexpected results. It will be noted that the untrained midwives have gradually disappeared from the Service. These women came on to the Register in 1902 when the Midwives Act was passed, though they had had no training in Midwifery. These have gradually dropped out owing to death or old age.

In the first place an examination of the column showing the number of cases taken by midwives and the table showing the percentage of births attended by midwives, reveals the fact that although the number of trained midwives has increased 2½ times since 1913, only 11 per cent. more mothers employed midwives at their confinements, and though the number of midwives has been augmented since 1922 by 28, an addition of one-third, an increase only of 4 per cent. is recorded in column 4.

This appears to imply that the midwives as such are hardly pulling their weight. It may be due to two circumstances; firstly, lack of confidence in the public of their powers as obstetricians and, secondly, opposition of the medical profession. It shows definitely that East Suffolk does not support the assertion that has been made in some quarters that the midwifery of the County is being taken out of the hands of the doctors and placed in those of the midwives, and that the medical profession is getting so few normal cases of labour that its hand may soon lose its cunning.

In 1926 each midwife performed on an average 10 midwifery cases during the year, while in 1913, each midwife was responsible for 13.4 cases.

A much more extraordinary figure, however, is that of cases in which the midwife has required medical help. In 1913 in only 3.8 per cent. of the cases was a doctor called by the midwife to help her, while in 1926 25 per cent. of the cases required medical aid. This increase of over six times is all the more extraordinary when one considers that in 1926 every midwife had passed the examination of the Central Midwives Board, while in 1913, 31 of the 73 midwives had had no training whatsoever. The figure for 1922 is half that for 1926, and I must confess that I am totally unable to explain the doubling of the calls for help in the five years. The increase from that time has been a steady arithmetical progression. The only explanation that I can conceive is that the confidence of these trained women has gradually decreased during this period. It is quite unreasonable to suppose that the cases of labour are becoming more difficult and complicated in so short a period as five years, and I believe that the type of cases dealt with in 1922 must have been comparable with those of 1926. Therefore, I feel I must assume that the midwife is losing confidence and is calling for medical aid more often than is absolutely necessary. This must of necessity act unfavourably upon the finances of the County Council, as this body is responsible for the doctor's fee when he is called in in a case of emergency.

The examination of the numbers of records for help from the midwives in the County shows a large variation. In the County the midwife who takes a small number of cases naturally is more inclined to send for help because with the occasional responsibility placed upon her she cannot develop the same degree of confidence that she would if more constantly employed. Therefore, I have confined my attention to midwives taking over 15 cases a year. Amongst the District Nurse Midwives there are only eight who have acted as midwife 15 or more times during the year, and the percentage of calls for help in each of them worked out as follows:—

A.	5 per cent.	D.	18 per cent.	G.	30 per cent.
B.	10 per cent.	E.	19 per cent.	H.	33 per cent.
C.	12 per cent.	F.	25 per cent.	I.	35 per cent.

Lowestoft is supplied by independent midwives, that is to say, women who have a private midwifery practice. One of these has taken as many as 80 cases in the year and a few have attended over 50 women. The percentages of calls for help out of the number of cases taken are as follows:—

I.	8 per cent.	L.	20 per cent.	O.	37 per cent.
J.	11 per cent.	M.	33 per cent.	P.	39 per cent.
K.	12 per cent.	N.	37 per cent.	Q.	46 per cent.

If the figure which I have given for the independent midwives of Lowestoft are compared with those of the nurses in the rest of the County, it would be seen that the former generally make a heavier call upon the doctors than the latter. This would not be expected because six of the independents undertook over fifty cases while the highest figure for a County midwife was 33, and practice should breed confidence and skill. Though the difference is large enough to cause criticism, nevertheless the fact that Lowestoft is a large town may give rise to a greater number of complicated confinements than in other parts of the County, and in addition, the doctors are very accessible.

The most striking feature is the amazing difference in individual practice, and a midwife who conducted 80 cases found it necessary to call in a doctor on 31 occasions; a midwife in the same area, working under the same conditions, attended 66 confinements, but required the help of a doctor only 8 times. This is a comparison of two concrete cases, but all degrees of variation are found from 5 per cent. to 46 per cent.

I find it difficult to offer a satisfactory explanation. Each midwife is bound to call in medical help for any of a series of complications specified in the Rules of the Midwives Board, but these cannot be definite, and the personal equation of a midwife must enter into the problem of the making of the decision as to whether help should be called and the rules are, therefore, to a certain extent elastic.

Delayed labour, for which many forms are issued, is a condition over which much difference of opinion may exist, and the nervous midwife may easily believe that such a condition has arisen without due cause. Furthermore, a ruptured perineum may occur through lack of skill. A midwife who sends for medical aid in 40 per cent. of her cases is an expense to the County Council and I think, does not exhibit the same self reliance and skill as a midwife who requires help in 10 per cent.

I shall watch with interest the figures for the individual midwives for next year, and if they approximate to those of this year, it will eliminate the possibility of either bad luck for one, or good fortune for the other, and will confirm my belief that difference in personality of the midwives is responsible for the large variation in the method of the conduct of their practices.

Annual Report of Inspector of Midwives.

1st *January*, 1926, *to* 31st *December*, 1926.

119 midwives notified their intention to practise in the County during 1926:—

Trained Midwives	118
Bona fide ,, ...	1
	119

Analysis of Trained Midwives.

Working under East Suffolk County Nursing Association	68
Independent midwives	23
Midwives employed in Poor Law Infirmaries ...	9
,, who did temporary duty	18
,, who left the County during 1926	6
,, struck off C.M.B. Roll	1
,, Practising in the County on 31st December, 1926	94

Cases attended by midwives.

Trained midwives.

As Midwife	1100
As Maternity Nurse	778
	1878

The *bona fide* midwife took no cases in 1926.

Medical help advised for the mother	217
,, ,, ,, ,, child	58
	275

Stillbirths.

As Midwife	30
As Maternity Nurse	33

Deaths.

Of mother	2
Of child	20
Notices of laying out dead	57
,, ,, liability to be a source of infection ...	41
,, ,, artificial feeding	15
Ophthalmia Neonatorum	23

Stillbirths.

8 were macerated.
3 were malformed.
3 were born before the arrival of the midwife.
11 were due to prematurity.
1 was due to accident by mother.
1 was asphyxiated.

In three cases a registered medical practitioner was in attendance.

Laying out of the Dead.

In two cases death was due to maternity.

Liability to be a Source of Infection.

Contact with Puerperal Pyrexia	4
,, ,, Puerperal Septicæmia	7
,, ,, Sapraemia	3
,, ,, Scarlet Fever	2
,, ,, Measles	3
,, ,, Mumps	1
,, ,, Chicken Pox	5
,, ,, Diptheria	3
,, ,, Erysipelas	3
,, ,, Ophthalmia Neonatorum	2
,, ,, Poliomylitis	1
,, ,, Whooping Cough	2
,, ,, Abscess	1
,, ,, Influenza	2
,, ,, Septic Finger	2

Puerperal Septicaemia.—Seven cases occurred in the practice of midwives. Two patients were removed to Hospital, where one died. One died at home, and the others made good recoveries.

In all cases of contact with infection, the midwives have disinfected, and in the cases of contact with Puerperal Septicaemia, the Secretary of the Central Midwives Board was notified of the period of suspension, according to the Rules of the Board.

Deaths.—20 deaths were those of premature and weakly infants. The maternal deaths were due to Ante partum and Post partum Haemorrhage respectively.

Registered medical practitioners were in attendance in each case.

Ophthalmia Neonatorum.—23 cases were notified.

Cured	15
Improved	7
Died	1
	23

Analysis of Cases taken.

East Suffolk County Nursing Association midwives.

As Midwife	568
As Maternity Nurse	598

Lowestoft midwives.

As Midwife	467
As Maternity Nurse	137

Other independent midwives.

As Midwife	65
As Maternity Nurse	43

Analysis of Medical Records for Help.

East Suffolk Nursing Association Midwives	137
Lowestoft Midwives	121
Other independent Midwives	17
	275

Reasons for sending.

Illness during pregnancy	7
Abortion	13
Albumenuria	6
Ante Partum Haemorrhage	14
Malpresentation	7
Uterine Inertia	5
Purulent Discharge	1
Rapid Labour	1
Delayed Labour	27
Obstructed Labour	10
Post Partum Haemorrhage	11
Ruptured Perinum	58
Adherent Placenta	10
Extended Breech	8
Injury to Child	2
Dangerous Feebleness of Child	29
Stillbirth	2
Discharging Eyes	19
Harelip and Cleft Palate	3
Rash on Baby	3
Sudden Death of Baby	3
Rash on Mother	2
Swelling of Veins	10
Oedema of Feet and Legs	3
Rise of Temperature	17
Eclampsia	1
Retention of Urine	1
Illness of Mother	2
	275

Routine Visits of Inspection to Midwives	264
Special Visits of Investigation	141

MARGARET F. CHALMERS,

Inspector of Midwives.

VIII.

BLIND PERSONS ACT, 1920.

I gave an account of how this Act was administered in this County in my Report for last year.

The following is a table submitted by the Voluntary Committee to the County Council, showing the number of blind persons and other particulars.

TABLE XXXIII.

Age Periods.

Sex	0-5	5-16	16-21	21-30	30-40	40-50	50-60	60-70	70	Total.
M.	—	10	2	10	16	12	17	36	45	148
F.	—	6	8	12	11	8	31	40	53	169
	—	16	10	22	27	20	48	76	98	317

Ages at which blindness occurred.

Sex	0-1	1-5	5-10	10-20	20-30	30-40	40-50	50-60	60-70	70	Un-known.	Grad-ual.
M.	32	8	5	4	15	11	11	23	15	7	—	—
F.	31	12	8	15	9	16	18	20	13	14	—	—
	44	20	13	19	24	27	29	43	28	21	11	19

Employment.—Age Period 16 *and Upwards.*

Sex.	Em-ployed.	Trained but un-employed.	Under Training.	No training but Trainable.	Unem-ployable.	Total.
M.	30	5	1	—	102	138
F.	19	—	4	3	137	163
	49	5	5	3	239	301

Occupations of Employed.

Basket and Cane Workers	10
Boot Repairers	2
Domestic Servants	4
Hawkers	1
Home Teachers	1
Knitters	9
Straw and String Bag Makers	2
Labourers	4
Mat-makers	9
Musicians and Music Teachers	2
Poultry Farmers	2
Seamstresses and Upholsterers	1
Tuners	2

Total 49.

Physically and Mentally Defective.

Sex.	Mentally Defective.	Physically Defective.	Deaf.	Total.
M.	8	—	5	13
F.	15	2	5	22
	23	2	10	35

School Age Period (5-16).

Sex.		Normal.	Mentally Defective.	Physically Defective.	Total.	Total Defective
At School ...	M.	7	3	—	10	3
,, ...	F.	4	1	1	6	2
		11	4	1	16	5

Percentage of Defectives in total—31.25

IX.

MENTAL DEFICIENCY ACTS, 1913 to 1925.

Alleged Mental Defectives Ascertained—East Suffolk.

Males.	Females.	Total.
246	310	556

Dealt with at the instance of parents or by Suffolk Mental Welfare Associations:—

Males.	Females.	Total.	
10	16	26	Training Homes.
21	9	30	Royal Eastern Counties Institution, Colchester.

Dealt with by Joint Committee in East Suffolk:—

	Institutions.		
	Males.	Females.	Total.
Feeble-minded	20	34	54
Imbeciles	18	16	34
Idiots	5	3	8
Moral Imbeciles	1	1	2
Discharged from Orders	—	1	1
Discharged to Asylum	3	1	4
Deaths	8	7	15
	55	63	118

	Guardianship.		
	Males.	Females.	Total.
Feeble-minded	1	7	8
Imbeciles	1	1	2
	2	8	10

Cases under Statutory Supervision:—

Males.	Females.	Total.
41	51	92

X.

TABLE XXXIV.

CANCER DEATH RATE.

Year.	Total Number of Deaths.	Death Rate per 1,000 Population.			
		Urban	Rural.	Administrative County.	England and Wales.
1917	260	1.48	1.46	1.47	1.19
1918	233	1.38	1.27	1.32	1.19
1919	255	1.45	1.23	1.32	1.18
1920	251	1.14	1.34	1.25	1.16
1921	250	1.14	1.27	1.22	1.21
1922	272	1.05	1.50	1.31	1.22
1923	278	1.29	1.37	1.33	1.26
1924	268	1.28	1.27	1.27	1.29
1925	280	1.45	1.25	1.34	1.33
1926	320	1.43	1.61	1.54	—

Cancer.

The number of persons dying from this disease exhibits marked increase during the year 1926, and exceeds the greatest previous number of deaths by 40.

The death rate for Cancer in this County is high and has been consistently higher than that for England and Wales. The figures for this particular year should not be taken to indicate a definite and permanent increase in the number of cases. The figure may be to a certain extent accidental, and I anticipate that next year it will be considerably lower, for as far as East Suffolk is concerned there appears to have been an indefinite fluctuation during the last 11 years, and it cannot be said that there is a steady increase from year to year. The figures for England and Wales as a whole are more significant, because large figures are dealt with, and since 1919 there has been a slight increase in the death from this disease every year.

The number of deaths this year, as I have said, is very large, and I am attempting in the following paragraphs to give some idea of the economic effect through the loss of life from this condition in comparison with that of Tuberculosis. At the first glance it might appear that because 330 persons died from Cancer and only 144 persons died from Tuberculosis, the former disease was $2\frac{1}{3}$ times as damaging to the community as the latter. What I hope to show is that in spite of the year 1926 being an abnormal year, the Cancer death rate being accidentally higher than would be expected, and the death rate from Tuberculosis being accidentally lower than would be expected, the damage from the two diseases in this particular year is practically identical, while in any previous year Tuberculosis affected the community more disastrously.

The following table shows the number of deaths from the two diseases placed in the various age groups.

Age Groups.	Deaths.	
	Cancer.	Tuberculosis.
0 — 1	0	2
1 — 2	1	1
2 — 5	1	4
5 — 15	2	8
15 — 25	0	33
25 — 45	24	58
45 — 65	108	31
65 — 75	121	6
75 —100	63	1
	320	144

Unfortunately for my purpose the periods supplied by the groups vary and are not split up into periods of ten years. Two of the most important periods, 25-45 and 45-65 make twenty year groups.

A glance at this table will show how tubercle affects the community at what may be termed the prime of life, while cancer is a a disease which mostly affects persons over 45 years of age, and that as many as 73 persons of over 75 have died in this County from Cancer.

In order, therefore, to show the relative effect on the community caused by deaths from Cancer compared with those caused by Tuberculosis, I have given a number to each age group, which, in my opinion is the value of one individual in that group, and the death of such an individual is a loss to the community equal to this number. It is obvious that the life of a child of one year of age is not of so great value as that of a man of 35, but is of greater value than that of a man of 75, and therefore I have given a series of life values in each age group which may be open to severe criticism. As the greatest proportion of the community belongs to the working classes, I have arranged these life values with this idea predominating, and it is because of the early age for marriage in this class that I decided upon the low figure for the 45-65 group. These figures, however, are merely an expression of opinion.

Age Groups.	Figure of Value.
0 — 1	5
1 — 2	6
2 — 5	8
5 — 15	11
15 — 25	18
25 — 45	25
45 — 65	15
65 — 75	3
75 —100	0

The lowest figure is 0. This is for age groups over 75, whilst the highest is 25 for age groups 25-45. All the other age groups receive figures varying between these two.

I start with 5 for an infant up to a year old. The figure is higher than the last two age groups because of the potentiality of the child, a life value considerably lower than that of 25, which I give to the individual in the prime of life, because this potentiality may not be realised, and before it is realised much energy on the part of others must be expended before the child arrives at this age group.

From 5 to 15 I consider the life value to be more than double that of the first age group. Towards the end of this time amongst the working classes, who form the bulk of the population, the child is nearing the period when it begins to provide for itself.

The age group 15–25 shows a large increase up to a life value of 18. The reason I assign this addition is that the potentiality of the individual is now becoming actual. He is now working and maintaining himself, and in the latter part of the period is married and a partner in the support of a household.

To the sixth age group, 25–45, I give the highest figure. This is because in the case of a man he is married and has children who are in this period of tender years and unable to provide for themselves, and he therefore is the sole support of his family; if a woman, she is married, and at an age when she is capable of bearing children, who during this period require her attention. Therefore the loss of a man or woman between these ages affects the community by a far greater amount than death at any other age. If a man, the wife and children are left without support; if a woman, the mother and the housekeeper is gone. In addition to this, the physical output of any man or woman is greater in this age group than in any other, and as the greater proportion of the population are manual workers this is an important point.

The figure that I thought for the next age group, 45–65, is probably more open to criticism than any other. I should have liked if possible, to have divided this age group into two, *i.e.*, 45–55 and 55–65, but unfortunately, I am unable to do this, as I have not the necessary figures. 45–55 is far more important than 55–65, because during this period the man may still have children unable to support themselves, whilst the woman's presence in the house is still necessary for the care of the younger children, though she is not capable of bearing more, and therefore I should be prepared to give a comparatively high life value for this age, at least 20, but from 55–65 these responsibilities disappear, and this group I should rate considerably lower than 15. Hence I have taken an average figure of 15 in order to include both sections of this group.

For the eighth group I have placed what may be considered an extraordinarily low figure, but the necessity for the support of a family has now disappeared. What may perhaps be the most important function for the individual is achieved, which is the production of a new generation and the support of this until it is able to fend for itself. In addition, the age of superannuation commences the period, while qualification for the Old Age Pension is reached in the middle of this group.

Those dying over 75 I have credited with no life value. This may seem arbitrary, because amongst them are many who are able to carry on their work, when of an intellectual type, in the most brilliant way, but these are few and one must take the population on a whole in considering such a question as this, and I feel convinced that the average life of a man or woman over 75 is of very little economic use to the remainder of the population.

Age Groups.	Fig. of Value.	Cancer.		Tuberculosis.	
		No. of Deaths.	Damage.	No. of Deaths.	Damage.
0 — 1	5	0	0	2	10
1 — 2	6	1	6	1	6
2 — 5	8	1	8	4	32
5 — 15	11	2	22	8	88
15 — 25	18	0	0	33	594
25 — 45	25	24	600	58	1450
45 — 65	15	108	1620	31	465
67 — 75	3	121	363	6	18
75 —100	0	63	0	1	0
		320	2619	144	2663

The above table shows the application of my figures for life values incorporated with the number of deaths from the two diseases. The two sets of figures are multiplied together in each age group, and the results added, give the total damage to the community for each disease, and these figures are very close indeed. The figures alone are, of course, of no use except for comparison with each other, and it will be seen that the numbers I have allotted show the damage due to Cancer and the damage due to Tuberculosis in the year 1926 to be practically identical in spite of the fact that $2\frac{1}{3}$ more persons died from the former disease than from the latter.

This, as I have mentioned before, is an abnormal year, and in a normal year the economic damage caused by Tuberculosis would be considerably greater than that resulting from Cancer, and therefore, though Cancer has for some time assumed the position of Captain of the Men of Death and Tuberculosis has dropped in the list to the fourth or fifth place, Tuberculosis still holds first place, dead-heated this year I admit by Cancer, as the most devastating and damaging disease of humanity.

TABLE XXXV.

Causes of Death at Different Periods of Life in the Administrative County.

CAUSES OF DEATH.	Sex	AGGREGATE OF URBAN DISTRICTS.										AGGREGATE OF RURAL DISTRICTS.									
		All Ages.	0—	1—	2—	5—	15—	25—	45—	65—	75—	All Ages.	0—	1—	2—	5—	15—	25—	45—	65—	75—
ALL CAUSES	M	502	57	9	10	18	15	46	106	113	128	789	76	10	15	14	24	64	186	174	226
	F	503	49	8	6	14	17	35	100	102	172	684	52	12	9	12	16	66	125	163	229
1 Enteric fever	M	2	—	—	—	—	—	1	1	—	—	1	—	—	—	—	—	—	1	—	—
	F	1	—	—	—	—	1	—	—	—	—	2	—	—	1	—	—	—	1	—	—
2 Small-pox	M	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	F	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3 Measles	M	1	1	—	—	—	—	—	—	—	—	1	—	—	—	1	—	—	—	—	—
	F	6	2	1	1	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
4 Scarlet fever	M	1	—	—	—	—	—	1	—	—	—	1	—	—	—	1	—	—	—	—	—
	F	1	—	—	—	1	—	—	—	—	—	1	—	—	—	—	—	1	—	—	—
5 Whooping cough	M	11	6	2	1	2	—	—	—	—	—	5	3	1	1	—	—	—	—	—	—
	F	14	10	3	—	1	—	—	—	—	—	9	6	2	—	1	—	—	—	—	—
6 Diphtheria	M	5	—	—	1	4	—	—	—	—	—	1	—	—	—	—	1	—	—	—	—
	F	2	—	—	2	—	—	—	—	—	—	2	—	—	—	2	—	—	—	—	—
7 Influenza	M	7	2	—	—	—	—	—	1	—	4	19	2	—	—	—	3	1	5	4	4
	F	7	—	—	—	—	1	—	—	1	5	22	—	—	—	1	1	3	4	4	9
8 Encephalitis lethargica ...	M	1	—	—	—	—	—	—	1	—	—	1	—	—	—	—	—	—	1	—	—
	F	—	—	—	—	—	—	—	—	—	—	5	—	1	—	1	—	2	1	—	—
9 Meningococcal meningitis	M	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	1	—	—
	F	—	—	—	—	—	—	—	—	—	—	1	1	—	—	—	—	—	—	—	—
10 Tuberculosis of respiratory system	M	29	—	—	—	1	6	11	10	1	—	33	—	—	—	1	6	19	7	—	—
	F	27	—	—	—	2	10	9	6	—	—	26	—	—	—	—	8	14	3	1	—
11 Other tuberculous diseases	M	8	2	—	1	2	1	—	1	1	—	9	—	1	1	1	1	2	1	1	1
	F	4	—	—	2	—	—	—	—	2	—	8	—	—	—	1	1	3	3	—	—
12 Cancer, malignant disease	M	58	—	1	—	—	—	4	21	18	14	94	—	—	1	—	—	9	33	40	11
	F	72	—	—	—	1	—	4	23	27	17	96	—	—	—	1	—	7	31	36	21
13 Rheumatic fever	M	—	—	—	—	—	—	—	—	—	—	5	—	—	—	1	1	1	2	—	—
	F	1	—	—	—	1	—	—	—	—	—	1	—	—	—	—	1	—	—	—	—
14 Diabetes	M	5	—	—	—	—	—	—	1	4	—	11	—	—	—	—	—	2	3	5	1
	F	6	—	—	—	—	—	—	3	1	2	8	—	—	—	—	—	3	1	2	2
15 Cerebral hæmorrhage, &c.	M	37	—	—	—	—	1	2	4	13	17	59	—	—	—	—	—	—	11	11	31
	F	37	—	—	—	—	—	1	6	10	20	58	—	—	—	—	—	—	11	24	23
16 Heart disease	M	64	—	—	—	2	—	2	20	23	17	96	—	—	—	1	—	3	28	14	23
	F	81	—	—	—	—	1	1	13	27	39	107	—	—	1	—	—	4	18	44	40

TABLE XXXV.—*Continued.*

Causes of Death at Different Periods of Life in the Administrative County.

CAUSES OF DEATH.	Sex	AGGREGATE OF URBAN DISTRICTS.										AGGREGATE OF RURAL DISTRICTS.									
		All Ages.	0—	1—	2—	5—	15—	25—	45—	65—	75—	All Ages.	0—	1—	2—	5—	15—	25—	45—	65—	75—
17 Arterio-sclerosis	M	25	—	—	—	—	—	—	4	8	13	30	—	—	—	—	—	—	3	9	18
	F	14	—	—	—	—	—	—	—	4	10	12	—	—	—	—	—	—	2	1	9
18 Bronchitis	M	25	4	1	1	—	—	1	4	5	9	72	14	1	1	—	—	—	5	16	35
	F	27	2	2	—	—	—	1	2	8	12	61	5	2	1	1	—	1	5	9	37
19 Pneumonia (all forms) ...	M	29	6	3	1	2	2	2	5	8	—	46	4	3	4	—	2	7	15	6	5
	F	28	9	1	—	1	—	2	5	5	5	28	5	4	2	2	1	4	5	5	—
20 Other respiratory diseases	M	12	—	—	1	—	—	—	4	3	4	5	1	—	—	—	—	1	2	—	1
	F	7	—	—	—	—	—	1	2	1	3	6	—	—	—	—	—	1	1	2	2
21 Ulcer of the stomach or duodenum	M	5	—	—	—	—	—	2	1	2	—	4	—	—	—	—	—	—	2	1	1
	F	1	—	—	—	—	—	—	1	—	—	6	—	—	—	—	1	2	2	—	1
22 Diarrhœa, &c.	M	5	2	1	—	1	—	—	1	—	—	7	3	—	1	—	—	—	1	—	2
	F	1	—	—	—	—	—	—	—	—	1	7	2	1	—	1	—	1	—	—	2
23 Appendicitis and typhlitis	M	3	—	—	1	—	—	1	—	1	—	2	—	—	—	2	—	—	—	—	—
	F	8	—	—	1	2	2	1	2	—	—	2	—	—	—	—	1	—	1	—	—
24 Cirrhosis of liver ...	M	3	—	—	—	—	—	—	2	1	—	1	—	—	—	—	—	—	1	—	—
	F	2	—	—	—	—	—	—	2	—	—	—	—	—	—	—	—	—	—	—	—
25 Acute and chronic nephritis	M	16	—	—	—	—	—	3	3	4	6	20	—	—	—	—	2	2	5	3	8
	F	11	—	—	—	—	—	2	6	1	2	17	—	—	—	—	—	2	6	3	6
26 Puerperal sepsis	F	1	—	—	—	—	—	1	—	—	—	1	—	—	—	—	—	1	—	—	—
27 Other accidents and diseases of pregnancy and parturition	F	5	—	—	—	—	—	5	—	—	—	5	—	—	—	—	—	5	—	—	—
28 Congenital debility and malformation, premature birth	M	25	25	—	—	—	—	—	—	—	—	38	37	—	—	—	—	—	1	—	—
	F	16	16	—	—	—	—	—	—	—	—	25	25	—	—	—	—	—	—	—	—
29 Suicide	M	7	—	—	—	—	1	1	4	—	1	16	—	—	—	—	—	—	10	5	1
	F	8	—	—	—	—	1	3	3	1	—	—	—	—	—	—	—	—	—	—	—
30 Other deaths from violence	M	10	1	—	2	—	—	3	1	—	3	37	—	1	2	2	3	7	13	1	8
	F	7	1	—	—	2	1	1	—	1	1	16	—	1	3	—	—	3	2	4	3
31 Other defined diseases ...	M	108	8	1	1	4	4	12	17	21	40	168	12	3	4	4	4	9	31	25	76
	F	105	9	—	—	1	—	3	25	12	55	150	8	1	1	1	2	9	27	27	74
32 Causes ill-defined or unknown	M	—	—	—	—	—	—	—	—	—	—	6	—	—	—	—	—	1	5	—	—
	F	3	—	1	—	—	—	—	1	1	—	2	—	—	—	—	—	—	1	1	—

TABLE XXXVI.

Notifiable Diseases. (*Infectious Diseases (Notification) Act*, 1899.)

Districts.	Scarlet Fever.	Diphtheria.	Enteric Fever.	Puerperal Fever.	Puerperal Pyrexia.	Pneumonia.	Poliomyelitis.	Cerebro Spinal Fever.	Encephalitis Lethargica.	Opthalmia Neonatorum.	Erysipelas.	Malaria.	Small-pox.	Dysentery.	Tuberculosis.	Total.
URBAN.																
Aldeburgh	1	1	—	—	—	8	—	—	1	—	—	—	—	—	3	14
Beccles	5	1	4	1	—	—	—	—	—	1	4	—	—	3	9	28
Bungay	20	—	—	—	—	13	—	—	—	—	—	—	—	—	3	36
Eye	2	—	1	1	1	—	—	—	1	1	4	—	—	—	2	13
Felixstowe	5	12	5	1	—	—	—	—	—	—	1	—	—	—	13	37
Halesworth	2	—	—	—	—	—	—	—	—	—	2	—	—	—	2	6
Leiston	4	9	—	—	—	11	—	—	—	—	2	—	—	—	9	35
Lowestoft	140	27	5	6	5	68	—	—	—	16	19	—	—	—	79	365
Saxmundham	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	2
Southwold	1	—	—	—	1	—	—	—	—	2	—	—	—	—	5	9
Stowmarket	41	—	—	—	1	3	—	—	1	—	1	—	—	—	6	53
Woodbridge	2		—	—	—	2	—	—	—	—	—	—	—	—	1	5
Totals ...	223	50	15	9	8	105	—	—	3	20	33	—	—	3	134	603
RURAL.																
Blything	6	8	8	—	—	2	1	—	—	—	7	—	—	—	13	45
Bosmere and Claydon ...	21	1	3	1	—	12	—	—	—	—	2	—	—	—	21	61
East Stow	23	1	—	3	—	9	—	—	1	4	2	—	—	—	8	51
Hartismere	31	14	—	1	—	16	—	—	3	2	6	—	—	—	11	84
Hoxne	13	2	1	—	—	5	11	—	—	1	4	—	—	—	5	42
Mutford and Lothingland	20	4	1	1	—	14	2	—	1	—	2	—	—	—	8	53
Plomesgate	12	3	—	2	1	12	1	—	1	1	1	—	—	—	22	56
Samford	17	15	4	1	—	34	—	2	—	1	1	—	—	—	19	94
Wangford	6	—	—	—	—	5	2	—	—	1	2	—	—	—	12	28
Woodbridge	2	2	3	—	—	2	—	—	—	—	3	—	—	1	29	42
Totals ...	151	50	20	9	1	111	17	2	6	10	30	—	—	1	148	556
Administrative County...	374	100	35	18	9	216	17	2	9	30	63	—	—	4	282	1159

TABLE XXXVII.

Causes of Death in each District During the Year 1926.

Districts	Enteric-Fever.	Small Pox.	Measles.	Scarlet Fever.	Whooping Cough.	Diphtheria.	Influenza.	Encephalitis Lethargica.	Meningococcal Meningitis.	Tuberculosis of Respiratory system.	Other Tuberculous Diseases.	Cancer Malignant Disease.	Rheumatic Fever.	Diabetes.	Cerebral Hæmorrhage, etc.	Heart Disease.	Arterio-Sclerosis.	Bronchitis .	Pneumonia, (All forms).	Other Respiratory Diseases.	Ulcer of Stomach or Duodenum.	Diarrhoea, etc. (under 2 years).	Appendicitis and Typhlitis.	Cirrhosis of Liver.	Acute and Chronic Nephritis.	Puerperal Sepsis.	Other Accidents and Diseases of Pregnancy and Parturition.	Congenital debility and Malformation, Premature Birth.	Suicide.	Other Deaths from Violence	Other Defined Diseases.	Causes ill defined or unknown.	All Causes.
URBAN.																																	
Aldeburgh	–	–	–	–	–	–	–	1	–	1	–	2	–	1	1	9	–	1	1	–	–	–	–	–	1	–	–	1	1	–	5	–	25
Beccles	–	–	1	–	2	–	2	–	–	10	2	10	–	1	2	14	6	3	1	1	–	1	1	1	1	–	–	2	–	2	13	1	77
Bungay	–	–	–	–	–	–	–	–	–	3	–	7	–	1	1	6	3	3	3	2	–	–	–	1	2	–	–	1	1	1	13	–	48
Eye	–	–	–	–	2	–	4	–	–	2	–	4	–	–	2	3	–	2	–	–	–	–	–	1	1	–	–	–	1	–	5	–	27
Felixstowe	1	–	1	–	–	–	2	–	–	4	–	9	–	1	18	24	6	13	12	1	2	–	–	1	3	1	1	4	1	5	24	–	134
Halesworth	–	–	–	–	2	–	–	–	–	3	–	8	–	–	5	2	1	2	3	–	–	–	–	–	1	–	–	–	1	–	6	–	34
Leiston	–	–	–	–	–	2	–	–	–	2	1	9	–	–	1	3	–	2	2	–	1	–	–	–	1	–	–	2	–	1	10	–	37
Lowestoft	2	–	4	1	17	5	4	–	–	26	8	61	1	6	31	58	19	21	29	14	3	2	9	1	10	–	3	19	8	6	94	–	462
Saxmundham	–	–	–	–	–	–	–	–	–	–	–	3	–	–	2	2	–	–	–	1	–	–	–	–	1	–	–	–	–	–	5	–	14
Southwold	–	–	–	1	1	–	–	–	–	–	–	2	–	–	3	5	–	–	1	–	–	–	–	–	–	–	–	3	1	–	12	–	29
Stowmarket	–	–	–	–	1	–	–	–	–	2	1	7	–	1	4	11	2	5	2	–	–	–	–	–	3	–	1	3	–	1	14	1	59
Woodbridge	–	–	1	–	–	–	2	–	–	3	–	8	–	–	4	8	2	–	3	–	–	–	1	–	3	–	–	6	1	1	15	1	59
Totals ...	3	–	7	2	25	7	14	1	–	56	12	130	1	11	74	145	39	52	57	19	6	3	11	5	27	1	5	41	15	17	216	3	1005
RURAL.																																	
Blything	2	–	1	–	6	1	5	–	–	7	2	30	1	6	21	24	6	27	14	1	3	2	–	–	6	–	–	11	2	11	50	–	239
Bosmere and Claydon ...	1	–	–	–	–	–	4	–	1	8	1	18	1	4	13	28	1	17	3	1	1	2	1	–	4	–	1	12	2	7	47	–	178
East Stow	–	–	–	1	1	–	–	–	–	4	1	8	1	2	4	8	4	8	6	1	1	–	–	–	2	–	–	3	–	4	15	–	74
Hartismere	–	–	–	–	2	2	5	2	–	3	2	27	1	2	15	15	4	14	7	–	–	–	1	–	3	–	1	3	2	2	23	–	136
Hoxne	–	–	–	1	3	–	6	–	–	7	1	20	1	–	15	17	1	14	2	–	3	–	–	–	8	–	1	6	–	5	30	–	141
Mutford and Lothingland ...	–	–	–	–	1	–	3	1	–	4	1	14	–	1	4	23	4	8	13	–	2	2	1	–	3	1	–	4	2	2	30	–	124
Plomesgate	–	–	–	–	–	–	11	1	–	8	3	14	–	–	16	30	2	10	8	1	–	–	1	1	4	–	1	5	3	6	37	4	166
Samford	–	–	–	–	–	–	2	2	1	9	3	27	1	2	15	21	15	15	6	3	–	–	–	–	1	–	1	6	1	8	33	–	172
Wangford	–	–	–	–	1	–	–	–	–	3	1	4	–	1	–	9	2	4	–	1	–	–	–	–	–	–	–	2	–	3	11	–	42
Woodbridge	–	–	–	–	–	–	5	–	–	6	2	28	–	1	14	28	3	16	15	3	–	–	–	–	6	–	–	11	4	5	50	4	201
Totals ...	3	–	1	2	14	3	41	6	2	59	17	190	6	19	117	203	42	133	74	11	10	6	4	1	37	1	5	63	16	53	326	8	1473
Administrative County ...	6	–	8	4	39	10	55	7	2	115	29	320	7	30	191	348	81	185	131	30	16	9	15	6	64	2	10	104	31	70	542	11	2478

APPENDIX A.

EAST SUFFOLK COUNTY COUNCIL.

SEVENTH
ANNUAL REPORT
— of —
NORMANSTON HOSPITAL.

1926.

EAST SUFFOLK COUNTY COUNCIL.

NORMANSTON HOSPITAL.

ANNUAL REPORT FOR THE YEAR 1926.

	Patients.	
There were resident in Hospital, 1st January, 1926	15	East Suffolk.
,, ,, ,, ,, ,, ,,	1	Norfolk.
,, ,, ,, ,, ,, ,,	1	Norwich.
Total	17	

There were admitted to the Hospital during 1926	51	East Suffolk.
,, ,, ,, ,, ,, ,,	5	Norfolk.
,, ,, ,, ,, ,, ,,	11	Norwich.
,, ,, ,, ,, ,, ,,	3	Great Yarmouth C. Borough.
Total	70	

Walking Cases	42
Ambulance Cases	15
Taxi and Cab	13
Total	70

There were discharged (including deaths):—

	Total.	East. Suffolk.	Other Areas.
Walking Cases	45	39	6
Ambulance Cases	9	3	6
Taxi and Cab	4	2	2
Died	12	8	4
Totals	70	52	18

There were resident in Hospital, 31st December, 1926:—17 patients.

Of the Cases who completed a course of treatment:—

(*a*) Diagnosis and Stage of Pulmonary Disease on Discharge (or Death).

	Total.	East Suffolk	Other Areas.
Advanced (Stage III) ...	24	20	4
Intermediate (Stage II) ...	23	18	5
Early and Observation ...	18	17	1
Non Pulmonary	5	5	—
Totals	70	60	10

(*b*) Complications of Tuberculosis Pulmonary Disease (including cases discharged, or died)

Mental Aberration	1
Ulcer of Tongue	2
Laryngitis	3
Spinal Caries	2
Bronchitis and Asthma	3
Enteritis	1 (died)
Broncho-pneumonia	1
Ischio-rectal abscess	1
Gastric or Duodenal ulcer	1

There has been an unusually large number of cases admitted to the Hospital where death was inevitable at an early date. Although the number of advanced cases has not been on the whole as great as for the preceding year, it is this fact that has accounted for the large number of deaths that have taken place.

	1921	1922	1923	1924	1925	1926
Advanced	32.4	40.5	33.7	41.0	55.12	34.28
Intermediate ...	40.8	35.1	54.0	53.5	37.18	32.85
Early and Observation	26.8	14.8	12.1	5.5	7.84	25.71

(*c*) Stage on Discharge:—

	Total.	East Suffolk.	Other Areas.
(1) *Much Improved.*			
Working 4 hours daily ...	19	18	1
Working less than 4 hrs. daily	4	4	0
(2) *Improved.*			
Working 4 hours daily ...	1	1	—
Working less than 4 hrs. daily	20	15	5
(3) In Statu Quo Ante ...	7	3	4
(4) Worse	7	3	4
(5) Died	12	8	4
Totals	70	52	18

	Admitted.	Discharged.
(*d*) Cases from Administrative County (including Lowestoft) ...	51	53 (8 died)
Cases from other Areas	19	17 (4 died)
	70	70
(*e*) Discharged Soldiers and Sailors	13	14
Civilians	57	56
	70	70

(*f*) Duration of Treatment:—

Average for patients discharged, excluding deaths, was 18 weeks. The maximum period was 67 weeks.

Treatment Results.

These have, as in the previous year, been satisfactory, a fair proportion of the patients having been discharged fit for work, and of these a number, judging by subsequent enquiry, had the disease arrested.

Committee.

The Rev. Evan C. Morgan and Mr. S. Balls were appointed as members of the Committee. Mr. Kerry Rix resigned.

There were nine ordinary meetings during the year.

I should like to take this opportunity of expressing my appreciation and thanks to the Committee for their unfailing kindness and helpfulness in all matters pertaining to the comfort and treatment of the patients and staff.

Buildings—Painting.

The exterior of the Administrative Block (wood and iron work) was painted. A small amount of the S.E. front of the Ward Block also was painted, as were the wood and iron work at the back of the building.

Trees.

Eight hundred conifers were planted about the Hospital grounds.

Supplies.

Contracts for a period of six months have been made as heretofore, with the exception of coal and coke. Local dealers only have been employed.

Poultry.

The number of eggs laid was 2846, as compared with 2739 of the previous year.

It is estimated that if the eggs and fattened cockerels killed, had been sold, a profit of £13 15s. 10½d. would have been made, as compared with £14 15s. 7½d. of the previous year.

Crops.

There has been a good supply of fruit, vegetables and flowers.

Staff.

Nurse Claxton was off duty from 3rd November suffering from a septic thumb, and pleuritis, and had not returned to her duties at the end of the year. Miss Hetty Roberts, kitchenmaid, was off duty for 10 days suffering from Influenza. The number of the staff has remained unchanged.

General.

The routine of the Hospital has remained unchanged.

The services of the Rev. W. Brown, Hon Chaplain, have been much appreciated by the patients and staff.

H. VICARS CROSSFIELD,
Medical Superintendent.

24*th February*, 1927.

Printed and Published by
Norman Adlard & Co., Ltd.,
Crown Street, Ipswich.

EAST SUFFOLK COUNTY COUNCIL.

ANNUAL REPORT

OF

County Medical Officer of Health.

1926.